

FORMS OF ECONOMIC ORGANIZATION
OR
**THE ECONOMIC DEVELOPMENT OF
THE GREAT POWERS AND INDIA**

(From early times up to 1914)

BY

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PREFACE

In recent years, most of the educated Indians have become deeply conscious of the fact that, while several countries in the West and Japan in the East have made stupendous economic progress and remarkably raised the standard of life of their people during the 19th and 20th centuries, India's economic progress and the improvement in the standard of life of her people have been negligible throughout this long period, although nature has been far more bountiful to her than to the other countries. They are, therefore, now evincing keen interest in a comparative study of the economic development of these countries and India, with a view to finding out the causes of this amazing contrast, so as to devise proper remedies for the deplorable economic condition of India. Moreover, in the recently revised courses of study for its Intermediate Commerce and Bachelor of Commerce examinations, the University of Bombay has made the Economic Development of the Great Powers and India a compulsory subject and other Universities in India may follow its example. This book is, therefore, meant for the general reader as well as the student. Its aim is to focus, within a reasonable compass, the reader's attention on the fundamental economic and social forces that have been at work in these countries from early times up to 1914, so that he can study the causes of great contrast mentioned above.

S. G. PANANDIKAR

SYNOPSIS OF CONTENTS

| | | | | |
|---|----|---|----|--|
| CHAPTER I. The Old Economic System | | | | |
| 1. Stages of economic evolution .. | 1 | and inheritance .. | 52 | |
| 2. Characteristics of the old economic system .. | 1 | 8. The influence of Hinduism on economic activity .. | 52 | |
| 3. The mediaeval village of Europe: the manor: serfdom: tenancy relationship .. | 6 | CHAPTER IV. The General Features of the Modern Economic Order .. | 55 | |
| 4. The feudal system .. | 13 | 1. The four Revolutions .. | 55 | |
| 5. The Enclosure Movement in Europe .. | 15 | 2. The general features of the new economic system .. | 55 | |
| 6. General condition of agriculture .. | 16 | 3. English inventions and French ideas .. | 56 | |
| 7. The Indian village .. | 17 | 4. Economic liberalism followed by nationalism and imperialism .. | 58 | |
| CHAPTER II. The Old Economic System (Contd.) | 22 | 5. The Colonial system in India followed by policy of economic development .. | 59 | |
| 1. Towns in Mediaeval Europe: handicrafts: Merchant Gilds; Craft Gilds .. | 22 | CHAPTER V. The Industrial Revolution among the Great Powers .. | 62 | |
| 2. Towns in India .. | 27 | 1. Why did the Revolution occur first in Britain .. | 62 | |
| 3. The Mercantile system in Europe .. | 31 | 2. The importance of machinery, steam, coal and iron: Differences in the tempo of the Revolution .. | 64 | |
| 4. The organization of trade .. | 32 | 3. Mechanical inventions .. | 66 | |
| CHAPTER III. Social and Religious Institutions and their influence on Economic Life .. | 34 | 4. The rise of the factory system : large-scale production: industrial areas .. | 67 | |
| 1. Historical developments of social institutions .. | 34 | 5. The Revolution in the U.S.A. .. | 69 | |
| 2. Judaism and the Jews .. | 38 | 6. The Revolution in Germany .. | 71 | |
| 3. The spread of Christianity .. | 39 | 7. The Revolution in Russia .. | 74 | |
| 4. The spread of Islam .. | 43 | 8. The Revolution in Japan .. | 76 | |
| 5. Hinduism and the caste system .. | 45 | | | |
| 6. Hinduism and the joint family system .. | 50 | | | |
| 7. Hinduism and the laws of property, succession .. | | | | |

CONTENTS

| | | | |
|---|------------|---|-----|
| 9. The growth of population .. | 78 | 14. Shipping of Continental countries .. | 121 |
| CHAPTER. The Industrial Revolution in India .. | 81 | 15. Shipping Conferences .. | 122 |
| 1. Periods of the Revolution .. | 81 | 16. Shipping in Japan .. | 122 |
| 2. Causes of the decline of the handicraft industries .. | 81 | 17. Shipping in India .. | 123 |
| 3. The commencement of modern industries : Plantations and factories 1860-1875 .. | 83 | CHAPTER VIII. The Commercial Revolution .. | 126 |
| 4. The growth of industries during 1881-95 .. | 86 | 1. The Commercial Revolution was the result of the Transport Revolution .. | 126 |
| 5. The expansion of industries during 1901-14 .. | 88 | 2. Britain's superiority as a carrier and Empire-builder .. | 129 |
| 6. Slowness and one-sided character of the Revolution .. | 91 | 3. Rivalries among nations and international combinations of capitalists .. | 130 |
| 7. The growth of some towns and the decline of others .. | 95 | 4. The revolution in commercial staples .. | 131 |
| 8. The re-organization of urban handicrafts .. | 96 | 5. The revolution in commercial organization .. | 132 |
| 9. The growth of population .. | 98 | 6. Produce exchanges .. | 133 |
| CHAPTER VII. The Revolution in Transport .. | 100 | 7. The rise of retail, departmental and multiple shops .. | 134 |
| 1. Importance of the Revolution .. | 100 | 8. Commercial specialization .. | 135 |
| 2. Roads in Europe .. | 100 | 9. Commercial integration .. | 135 |
| 3. Roads in India .. | 102 | 10. The different forms of combinations .. | 137 |
| 4. Inland waterways in Europe .. | 103 | 11. Merits and drawbacks of combinations .. | 138 |
| 5. Inland waterways in India .. | 106 | 12. The financial revolution .. | 139 |
| 6. Railways in Britain .. | 107 | 13. The social revolution: growth of towns: rise of new social classes: of new personal mobility .. | 139 |
| 7. Railways in Germany .. | 110 | 14. Migration and emigration .. | 141 |
| 8. Railways in Russia .. | 111 | 15. The commercial revolution in India .. | 142 |
| 9. Railways in the U.S.A. .. | 112 | 16. Britain's commanding position in India's foreign trade: later .. | 142 |
| 10. Railways in Japan .. | 113 | | |
| 11. Railways in India .. | 114 | | |
| 12. Shipping in Britain .. | 118 | | |
| 13. Shipping in the U.S.A. .. | 120 | | |

| | | | |
|--|------------|---|-----|
| diversion to other countries .. | 144 | methods of marketing crops .. | 165 |
| CHAPTER IX. The Agrarian Revolution .. | 147 | 4. Improvements in agricultural methods .. | 167 |
| 1. Revolutionary improvements in the technique of agriculture .. | 147 | 5. Grants of Takavi loans by Government .. | 171 |
| 2. The second Enclosure movement, the creation of large farms and the rise of the rural proletariat in Britain .. | 148 | 6. Construction of irrigation works by Government .. | 171 |
| 3. The repeal of the Corn Laws in Britain .. | 150 | 7. The radical change in the character of famines .. | 175 |
| 4. Agricultural depression and the growth dairy, cattle, fruit and vegetable farming of Britain .. | 151 | 8. Tenancy legislation .. | 176 |
| 5. Commercialization & specialization of agriculture .. | 151 | 9. Indebtedness of the peasants and their protection from moneylenders .. | 177 |
| 6. Efforts to restore small farms in Britain | 151 | 10. The sub-division and fragmentation of holdings .. | 179 |
| 7. The disappearance of feudalism, the emancipation of servile peasants and the adoption of intensive methods of agriculture in Continental Europe | 152 | 11. The inertia of the peasants .. | 180 |
| 8. Agrarian revolution in Germany .. | 154 | 12. The change in the character of the villages | 181 |
| 9. Agrarian revolution in Russia .. | 156 | 13. The change in the position of the village artisans .. | 182 |
| 10. Agrarian revolution in the U.S.A. | 158 | CHAPTER XI. The Evils of the Factory System: Factory Laws: Trade Unions: Social Insurance .. | 184 |
| 11. Agrarian revolution in Japan .. | 161 | 1. The evils of the factory system .. | 184 |
| CHAPTER X. Agrarian Developments in India in the Modern Era .. | 163 | 2. Factory laws in Britain .. | 185 |
| 1. Main features .. | 163 | 3. Factory laws in Germany .. | 187 |
| 2. The commercialization of agriculture .. | 163 | 4. Factory laws in the U.S.A. .. | 188 |
| 3. The change in the | | 5. Factory laws in India .. | 188 |
| | | 6. Trade unions in Britain .. | 190 |
| | | 7. Trade unions in Germany .. | 192 |
| | | 8. Trade unions in Russia .. | 193 |

CONTENTS

| | | | |
|--|-----|--|-----|
| 9. Trade unions in the U.S.A. .. | 193 | 2. The gradual adoption of free trade by Britain .. | 201 |
| 10. Trade unions in India | 194 | 3. The liberal fiscal policy of Germany .. | 203 |
| 11. The necessity for social insurance .. | 195 | 4. The commercial policy of Russia .. | 204 |
| 12. A State system of social insurance in Germany .. | 195 | 5. The commercial policy of the U.S.A. .. | 205 |
| 13. A State system of social insurance in Britain .. | 197 | 6. The policy of free trade in India .. | 206 |
| 14. Social insurance in the U.S.A. .. | 197 | 7. The reaction against <i>laissez faire</i> and the increase in State activity .. | 207 |
| <i>CHAPTER XII. Changes of Economic Thought and Policy in Modern Times: Laissez Faire: State Intervention : Commercial Policies</i> .. | 199 | 8. The protectionist revival in Europe .. | 210 |
| 1. The doctrine of <i>laissez faire</i> and the end of mercantilism .. | 199 | 9. State help to agriculture .. | 212 |
| | | 10. State intervention, in industries, education, social welfare, etc. .. | 212 |

CHAPTER I

THE OLD ECONOMIC SYSTEM

1. *Stage of Economic Evolution.* Mankind has passed through the following stages :—

(a) *Primitive Economy.* In the beginning and for many ages, man subsisted on wild fruit, nuts, roots and herbs. He wandered about in small groups and had to pass through alternating periods of abundance and scarcity, according to the changing seasons and weather. Each group was absolutely independent of others for food supply. The primitive man supplemented his food by catching fish and game, wherever they were available. But this depended upon a certain amount of technical progress. Economic progress of man has been very largely the result of technical progress. At first his weapons were his only tools and these were easily available objects, such as wooden sticks, animal bones, tusks and teeth and pieces of stone. Later progress came with the combination of weapons and tools, such as fixing a flint to a stock or fastening jagged teeth to pieces of wood.

The bone and the stone age lasted for a very long time. Gradually the weapons-cum-tools were improved, especially by means of fire, so as to be more useful for warfare as well as the saving of labour. This improvement became most prominent when metals were employed. But even before, man had learnt to produce arrows, knives, javelins, daggers, hammers, millstones, saws, etc. Fire was also used for warmth and better preparation and conservation of food. This was accompanied by the invention of the earliest utensils made out of horns, wood and gourds and of pottery. Thus, man not only became less dependent on his environment, but also found it possible to modify it more and more. The old stone or palaeolithic age took countless generations to change into the new stone or neolithic age. But weapons, tools and utensils were the outward technical manifestation of man's intellectual progress and the physical basis of his economic development.¹ The discovery of the use of fire for smelting slowly led to the inauguration of the metal age. Copper, then bronze and finally iron implements gave man increasing control over nature.

(b) *Transition from the Primitive Economy.* Metallic weapons and implements were most useful to hunters. But when game became scarce, hunters discovered that they could

¹ See Seligman, **Principles of Economics**, p. 71.

obtain a more dependable food supply by domesticating and breeding various animals. Later, they found that such animals could be used also for transport, clothing, protection and pleasure. This brought about the transition from the hunting stage to the pastoral stage in the extensive plains of Asia and North Africa, where wide areas of grazing land and various animals suitable for domestication were available. Elsewhere, conditions for such domestication were not favourable. The pastoral stage provided a more reliable food supply. Famines, therefore, became less frequent and less intense and a larger population could be maintained on the same area. While in some areas the agricultural stage succeeded the pastoral stage, in others, it was combined with the pastoral and even with the hunting and fishing stage. Agriculture was the result of the discovery that wild plants, like wild animals, could be domesticated and that seeds multiplied themselves. But agriculture became important and the wandering hunter or the nomadic herdsman became the settled farmer, only when the supply of game or of domesticated animals became precarious. The desire for permanent possession of cattle and land arose and grew, private property developed and differences of wealth and social classes came into existence. The agricultural stage also did not precede the commercial stage everywhere. In the case of many people living on the coasts, the fishing stage was immediately followed by the commercial stage, and in some other cases, the pastoral stage by the commercial stage.

It is, therefore, desirable to examine the stages of economic evolution also from the view-point of the relations of the production of wealth to its consumption. From this aspect, three great stages can be traced, viz., self-sufficing or isolated economy, trade or commercial or local or village economy and the capitalist or industrial or national economy.² The characteristics of each are as follows:—

(a) *Self-sufficing or isolated economy.* In this stage, the economic unit, consisting of the household, produced all that it required and consumed all that it produced. What little division of labour could be carried out, was within the household and developed only with the growth of the household's needs. Whether the household was small or large it was a complete unit and had no relations with other units. This self-sufficing or isolated economy prevailed entirely in the hunting and pastoral stages and in the early period of the agricultural stage. Later, it developed different features. The economic unit might be based on slave or free labour. The lord of the estate might be a single person or a group. It was found in (i) ancient Greece, in which *oikos* meant the landed estate, (ii) ancient Rome, in which *fami-*

2 See Seligman, *op. cit.* p. 74.

lia meant the entire possessions of the citizen, including his family, land, slaves and other belongings, (iii) the manor of mediaeval Europe, (iv) the plantation of the American slave-owner, (v) the Russian *mir* or village community and (vi) the Indian village community. If the unit was a group, the needs of its members were met entirely by their own labour, and they were independent of other units, as much as producers as consumers.

After a long time, those households that possessed certain natural or acquired advantages in the production of certain goods, learnt to build up a surplus and to exchange them with other groups for other goods. But this barter made no fundamental change in the economic organization of the households as long as each produced and consumed most of goods needed by it. Thus, in the Greek and Roman estates and the American plantations one or two primary products such as wine, oil, wheat, tobacco, cotton or sugar were produced for exports and sold in the towns. Although there was some trade between the units, there was little trade within the units, and the former played no important part in the life of each unit. Even where a unit had a surplus for being bartered, its consumers were almost entirely dependent on its production. Thus, the estates, plantations and *mir* and not towns typified the economic life of Rome, the Southern States of the U.S.A. and Russia.

(b) *Trade or Commercial or Local or Village Economy.* With the increase of trade within and between the economic units, their self-sufficiency gradually diminishes and this stage comes into existence. Its chief feature is that exchange is interposed between production and consumption. Trade within each unit develops and its members produce commodities chiefly for the needs of others and not for their own needs. Producers and consumers become separate classes. The economic unit, although broader than before, remains local and the trade and industry are carried on primarily in the villages. This stage was noticeable in the Middle Ages on account of the stimulus given to trade by the opening of new routes resulting from the Crusades. The markets and fairs became important and permanent in the form of villages and towns. The village with the outlying territory became the economic unit. The lands or estates supplied the raw materials to the towns, which converted them into finished goods. The broadening of the economic unit increased the importance of industry and separated it from agriculture. Formerly, the farmer had been his own carpenter and his wife the spinner and weaver. Now, the village artisans began to form an independent class and to bring raw materials from the farmers. Both the classes benefited by trading with each other. Industry became dependent on trade in another way too. The artisans had not only to buy their raw materials,

but also to sell their finished goods as traders in their shops or booths at the fairs. It was only gradually that the artisans became workers only and that trade began to be carried on by merchants. For a long time, all trade was retail and was carried on in local markets and fairs and even when wholesale trade in a few stable commodities was developed later, the modern machinery of commerce was altogether absent.

A further development of this stage came with the building up of fortunes by means of trade and the advent of merchant princes by the side of the feudal landlords. The commercial capital that was accumulated, however, could not go on indefinitely increasing ships and vans, without increasing the commodities traded in. But the quantity of the commodities increased very slowly in the absence of power-driven machinery. It is true that this development had different aspects in different areas. In some areas, agriculture was the only important factor and landlords dominated the situation. In others, such as the Hansa towns, markets of wholesale trade were most prominent and merchant princes were the most powerful. In still others, centres of manufactures came into existence and the craft guilds were supreme. In spite of these differences, the features of this stage were the small workman, the small trader, village or local economy and absence of industrial capital. The landlords sold their produce in the neighbouring village market and obtained therefrom those consumption goods which were not produced on their lands. Most of the trade of the merchant princes was local. Their trade with other lands was small and the national and international fairs dealt in a few commodities only. The artisan produced his goods mostly for the local market. The village or town was a unit and the person who came from another village or town was as much a foreigner as one who came from another country³. This stage lasted for many generations. Its gradual modification and ultimate disappearance were brought about by the accumulation of wealth resulting from the discovery of the new world and of large amounts of the precious metals there and by the great stimulus to commerce given by the opening up of the all-sea routes to the East. This wealth was applied on an increasing scale to expand industrial production. So, industrial capital in increasing quantities came into existence and led to the next economic stage.

(c) *Capitalist or Industrial or National Economy.* The main feature of this stage is the advent of industrial capital on a large scale and the capitalist, who employs the workers and controls the industrial concern. In the first stage, there was unity in the whole economic process, in the second stage it was limited to production, but in this stage production itself is subdivided. At

3 See Seligman, op. cit. p. 80.

first, the capitalist appears at the beginning or end of the productive process, by buying the raw materials wholesale or by selling the finished goods wholesale, and left the other parts of the process to the independent workers. Later, he secured the working places and ultimately the technical means of production, thereby converting the workshop into a factory, the tools into machines and the independent workers into factory operatives. Then, the various parts of the productive process became so important that each of them, *viz.*, the supply of raw materials, the supply and working of the machinery in the factory and the supply of the finished goods to the consumers, was taken up by separate groups of capitalists. Finally, the capitalists become so powerful in some industries, that they combined into a single group to obtain complete control of all parts of the economic process, from the acquisition of the raw materials to the final disposal of the finished goods to the consumers. The industrial organization thus became very complicated.

In this stage, production is conducted on a large scale, with complex division of labour and in anticipation of demand. The slow methods of the previous stages, determined largely by custom, are replaced by fierce competition. The last traces of barter disappear and money economy prevails completely. Credit is no longer confined to the personal needs of the borrowers and is granted in large amounts for promoting production and trade. The desire to increase the profits of capital leads to the invention of labour saving machinery. This increases the production of most forms of wealth enormously, cheapens them greatly and enables the masses of the people to raise their standard of living remarkably. New wants come into existence, new industries are started to meet them and more employment becomes available to the workers at increasing wages. But the stupendous power of capital and the division of society into industrial classes raise new and complex social problems, which almost defy solution. Another feature of this stage is that the nation becomes a single unit for production and consumption and that the local economy gives way to national economy. The economic interests of the national unit can be safeguarded only by forming a strong, national, political unit. Hence, the small feudal principalities merge into the modern national states. The antagonism between one town and another is replaced by the citizenship of the state, and the foreigner is the man from another nation and not from another village or town but the nations now came into conflict with each other, as the towns did before, and the very foundations of modern civilization are shaken by world wars.

In recent years, the further extension of capitalist methods, the great developments in communications and the expansion of speculative activities have created a world market for most

commodities and many writers speak of an international economy. After the first World War, the League of Nations endeavoured to establish a world economy but failed. After the end of the second World War, the United Nations Organization is trying to do the same, and may succeed. But the nation is still the economic unit and the national economic outlook will take time to develop into the international.

In the first stage, prosperity was based entirely on agriculture, in the second stage, largely on trade and in this stage, predominantly on industry in the narrower sense of the conversion of raw materials into manufactured goods. Hence, the capitalist stage is also called the industrial stage. Commerce is no doubt still of great importance but it is now mainly the hand-maid of industry.⁴ Agriculture and commerce themselves have been revolutionized by the application of capital and machine methods. In the first stage, the rich man was the feudal landlord, in the second, the merchant prince and in the third, the big industrialist. Economic prosperity and political power are enjoyed only by the industrialised nations.

2. *Characteristics of the old Economic System.* From the economic point of view, the modern age was ushered into the civilized world by the Industrial Revolution, which meant the rise and expansion of industrialism and a decline in the importance of agriculture. This revolution first began in Britain about the middle of the 18th century. It spread to the other countries of Western Europe, Germany, the U.S.A. and Russia in the 19th century and to most of the other countries of Europe and some of the countries of Asia, such as Japan and India, later in the century. Before the Industrial Revolution and the modern economic age, the old economic system or order prevailed in all the civilised countries. Although, owing to differences of religion, civilisation and industrial antecedents, the minor features of this system differed in different countries, its fundamental characteristics were the same and they were universal in all the civilised countries. They were as follows :—

(a) The preponderance of agriculture over other occupations was overwhelming. Hence most of the population had to pursue it and to live in villages. So, the rural population predominated over the urban. Many of the market towns even were villages according to modern standards.

(b) Each village had a complete equipment of artisans and mcnials and was, therefore, self-supporting and did not depend for its existence upon exchanges with the outside world. The villager had hardly any contact with the outside world, except when the grain or cloth merchant, carrying the surplus of one

⁴ See Seligman, op. cit. p. 84.

village to meet the shortage of another, visited his village, or when he rarely went to a trading town for selling the products of his craft. This was due to the lack of transport and means of communication. Exchanges are limited by the means of conveyance and the latter were very inefficient. Wherever water carriage was impossible and wheeled traffic impossible or slow and untrustworthy, owing to the absence of roads or bad roads, exchanges had to be restricted to those articles which could be transported by men or pack animals. But only small quantities could be carried in this way and only over short distances. Moreover, the roads were insecure owing to the presence of highwaymen and gangs of marauders. All villages, therefore, had either to produce the articles they needed themselves or to do without them.⁵ Owing to its self-supporting organization, the village did not suffer in ordinary times from this lack of communications. But a scarcity or famine at irregular intervals was inseparable from such conditions. The village was entirely dependent on the produce of its own fields for its food supplies. The harvests failed occasionally on account of unfavourable seasons. If they failed partially and if the duration of the scarcity was moderate, the needs of the villagers could be met from the village grain store. Otherwise, the villagers starved owing to the difficulties of transporting food from the regions which had bumper harvests. This also explains the remarkable differences and variations of prices even in neighbouring villages.

(c) The division of labour among the villagers was simple and imperfect, on account of the small size of the market for the commodities produced by them. The advantages of specialisation could not be secured and much time and skill had to be wasted, so that rural industry was in a very backward condition.

(d) The direction of industry was in the hands of small craftsmen, each of whom worked independently on his own account, because the local demand was so small that it could provide employment to only one or two representatives of each industry. Hence, the capital employed in each unit of industry was small and the middlemen, managers or entrepreneurs were entirely absent.

(e) The farmer worked a small holding at his own risk and for his own profit. The labour was supplied by himself and his family and all the capital consisted of what his own small means and slender credit enabled him to provide. The holding was fragmented and consisted of a number of small, open and unenclosed fields.

(f) Exchanges were generally effected by means of barter and money was rarely used either for this purpose or to pay for

⁵ See Morison, **The Economic Transition in India**, p. 16.

services. The need for money was little felt in a community, which itself produced all the necessaries of life and had little need to carry on exchanges with the outside world, except for the occasional purchase of a few luxuries. The economic life of the entire village centred round the crops, the production of which occupied the majority and upon the abundance of which the well-being of all depended. In these conditions, grain was the natural standard of value and the villagers used it as money in their mutual exchanges. The bulkiness of grain was no obstacle to its use for carrying out exchanges, because the exchanges were generally effected within the village itself. Moreover, it was universally desired.⁶

(g) Custom and status predominated over competition and contract and determined economic relations of all kinds. This was the result of the absence of money economy and the conservative instincts of the people. The individual had no freedom to choose his occupation and standard of life. These as well as his social status were determined for him by the accident of birth in a particular social class or caste and family and he had to submit himself to them. Custom also regulated rent, wages and prices. The rents paid by the tenants to their landlord were mostly customary, because cultivable land was abundant relatively to the population and because, on account of general insecurity, the tenants could not be sure of securing a fair share of the result of their toil. Moreover, the insecurity compelled them to look to their landlords for protection, and the landlords, to look to the tenants to serve as retainers. This mutual dependence brought about, on the whole, a fair and mutually beneficial relationship between them.

As regards wages, labour was hired for the cultivation of land to a very small extent only and was paid for in the shape of food and shelter in the house of the employer or payments in kind generally fixed by the year. The services of the rural artisans to the villagers were paid for in the form of a grain allowance every year from every cultivator. Although the payments were customary, they were not rigid, and varied within limits from one year to another, according to the abundance or scarcity of the harvests. With regard to prices, money payments for goods purchased were infrequent owing to the general absence of money economy. But if they were made, they were regulated by custom in normal years. In years of abundance and scarcity, however, competition overcame custom and the local prices fluctuated enormously, as the village had little connection with the outside world owing to the difficulties of transport. Prices then varied greatly even in neighbouring villages. A uniform

6 See Morison, *op. cit.* p. 45.

level of competitive prices for the whole country was obviously impossible owing to the absence of wide, well-organized and sensitive markets.⁷

The above analysis shows that custom could not remain out of conformity with competition for a long time and competition worked silently in the form of changed custom. This was inevitable, because competition is nothing but struggle for existence, which pervades all life. The opposition between custom and competition is much less than is commonly believed. When they diverge, custom is generally modified to bring it into line with competition, which expresses the practical needs of the problem. The opposition merely means that adaptation and change are more difficult under custom than under competition, owing to greater friction brought about by the imperfect mobility of labour and capital. Actually, however, custom produced both good and evil. It protected the weak from the strong, when laws of Government were non-existent or powerless. But it also led to the exploitation of the weak by the strong, e.g., under the feudal system or under the guild or caste systems in their later stages.

(h) Usury was universal owing to undeveloped credit. Credit is a necessity for the agriculturist and this necessity presses hard upon the small agriculturist. Being shut up in the village, he had to approach the only man in the village, the Jew or Bania, who was able and ready to give him credit. The money-lender was often a mere usurer. He made the most of the misfortune of the borrower and lent him on terms, which ultimately ruined him. Beginning with a small loan, all the tricks of the trade were practised by the usurer, until the land of the borrower came into his possession. Being ignorant, the peasant could neither keep accounts nor judge of the financial result of his venture in cultivation or of a loan from the moneylender. In many cases, the peasants became so heavily involved in debt that their entire produce was taken over by the village money-lender on his own terms, and the latter then, again on his own terms, provided them with food and seed, often of poor quality, or gave them advances for the purpose, after adjusting the previous year's debt.

3. The Mediaeval Village in Europe: The Manor: Serfdom: Tenancy Relationship. The villages were of two main types: scattered and nucleated. In the latter, all the cottages, farm buildings, etc., were grouped round one or two roads and were surrounded by the fields belonging to the village, around which stretched the wasteland. This type was found where the land was fertile, so that a few acres were enough to maintain a family. The scattered village was a loose collection of scattered farmsteads.

⁷ See Jathar and Beri, **Indian Economics**, Vol. I, p. 136.

or hamlets, each with its own fields. It prevailed in poor, mountainous or newly settled areas. The cultivated land was split into three parts, one being kept fallow each year. At first, each family, except the slaves consisting of the conquered and their descendants had an equal share in the available land. The holdings, however, were not compact and were divided into small strip scattered in the open fields. This division was originally made for the sake of fairness, so that no family should get a large block of good or poor land.

On account of this mixing up of everyone's strips, all farming operations had to be carried on in the same way, raising the same crops at the same times fixed by the village as a whole. There was little scope for variation by individual peasants. Moreover, there was waste of land, for marking the division between strips and waste of time, when a person had to go from one to another of his strips. One of each three fields was sown with wheat or rye or both together, the second with barley or pulse (peas and beans) and the third was kept fallow. The technique was primitive. The plough was made of wood with an iron share at most and drawn by oxen. The villager's oxen, sheep and goats grazed upon the fallow fields throughout the year and on the stubble of the other fields between harvest and seed time. The wasteland round the village was called the common and was used by the villagers to feed pigs and sheep, to cut wood or to dig turf or peat. The whole routine of pasture as of cultivation was communally arranged. It was difficult for a man to farm better than his neighbours. The whole system subordinated individual wishes and convenience to those of the village as a whole. It was stable organization, in which changes could be made only by common consent, unless they were enforced from the outside. It, therefore, suited most people and in its broad features persisted up to the 18th century.⁸

This picture of a number of free and equal families cultivating the soil communally, but cultivating it for themselves, without having to provide work or taxes to any one but the king, was modified by the 11th century by the growth of the feudal system, which will be described later, so that the village took a new form, which came to be known as the feudal manor.

The manor was a complete geographical and economic unit and at first coincided with the village. Later, however, in some cases, a manor contained more than one village or parts of different villages. All the villagers were tenants of the manorial lord and held their land by some kind of rent or service paid to him. The lord, like his tenants, lived on the produce of the manor. He held for himself a share of the land of the village, the demesne, and the primary obligation of tenants was to cul-

⁸ See Croome and Hammond, **The Economy of Britain**, p. 10.

tivate it properly. The majority of them, the *villeins*, were responsible for a certain number of day's work on the demesne every week, and for other duties, called *boon works*, during periods of special need, such as harvests. They, however, were allowed to send relatives or hired labourers to do the work for them.

In addition to claiming labour, the lord could *tallage*, i.e., tax his villeins as much as he pleased. The villein was bound to the land. If he desired to leave or sell his holding, he had to pay a tax called *chevage*, in order to get the lord's permission to do so. If he wanted to get his daughter married, he had to pay a tax called *merchet*. When he died the lord took away his best animal as a *heriot* or death duty. He had no rights against the lord and could not sue him in the King's court.

Besides the villeins, there were the free tenants. They were free from week-work, although they had to give their labour at harvest time. They were also free from arbitrary tallage and the other taxes mentioned above. They were not tied to the land and could sell their holdings whenever they wished. Finally, there were the cottars or cottagers holding only a small strip of land round their cottages. In theory, they were villeins but in practice they were exempt from the heavy burden of week-work. Hence, they could earn their living by hiring their labour to their richer neighbours. This class was small at first but gradually increased in size and importance.

Thus, the villeins and cottars were virtually serfs. The earlier society, rooted in Roman and German origins consisted of free and slave, the latter consisting of the conquered and their descendants. As the protecting power of the State declined, and disorder increased, the freemen surrendered a part of their rights to liberty and property to a lord, who gave them protection, and kept the remnant rather than lose all the rights. Slaves, on the other hand, rose as the freemen sank and the two classes merged in the intermediate class of the part free, i.e., serfs. Slave labour was unprofitable unless performed under the supervision of the master or his overseer. But with persons dispersed over fields, this was not possible. The master, therefore, found it profitable to give the slave some land and some time to himself and to raise him to the status of a serf, but obtained from him dues in labour and products for his own maintenance.⁹ Although the law gave them no protection against their lord, in practice, abuses of the personal power of the latter over them were exceptional, because the abuses did not pay and because protection against them was given by custom. Moreover, the law did protect the part-free against all others.

⁹ See Clive Day, **Economic Development in Europe**, p. 4.

The control over the manor was exercised by the lord's court *court baron*, presided over by his stewards. It kept records of land bought and sold, things customarily done, rights and privileges of the lord and tenants and fines imposed on specific occasions in that particular manor, and preserved and enforced the custom of the manor. Both lord and tenants were bound by the custom, which was very important. The court also dispensed justice in the villagers' quarrels.

On account of the open field system, primitive technique and lack of incentive to efficiency for villeins bound to work for their lord, the agricultural yield was poor. The general standard of life was low. The cottages were made of twigs plastered with mud, with little heat and almost no artificial light. The household goods, of the villagers consisted of the barest necessities and their utensils were made of wood or earth. Their food was not only coarse, unvaried, ill-balanced and lacking in vitamins, but was often also deficient in quantity. On account of the undue prolongation of the winter or scarcity or excess of rain and the self-dependence of the manor, famines occurred at intervals and were usually followed by pestilence, which swept away those people, whose power of resistance had been lowered by the lack of food. The only justification of the manorial system, therefore, was that it preserved society and made some advance possible in the midst of the general confusion which prevailed at that time.

From the 14th century the manorial system began to change and ultimately it was dissolved. The most important cause was the rise and growth of the towns, which meant an increase in the demand for the agricultural product of the rural labourers and also for their labour in towns. On the other hand, the supply of labour was reduced by the Black Death, a bubonic plague, which caused a heavy mortality in many countries of Europe in the middle of the 14th century. Hence, the manorial lords had to abate their demands on their villeins and to allow some improvement in their status, if the latter were to be retained on the manors and were to get some incentive for improving their agricultural efficiency. Various laws known as "Statutes of Labourers" tried to overcome these influences, which tended to improve the condition of the interests of their lords. Thus, they required all adults to serve an employer, preferably their former lords, under the old conditions, and provided for the branding of runaway villeins and for the finding of the towns which gave them shelter. But, they had little effect. They were followed by the risings of the labourers against their lords. Gradually, contracts expressed in money came to be substituted for the customary dues payable by the tenant to his lord in labour or kind because, with the growth of the towns, the circulation of money

increased slowly. This commutation of labour services improved production, diminished friction between the lord and their tenants and removed much waste of time and energy. This lords benefited, because the economic value of the commuted payment was greater, and the tenants benefited, because they were freed from personal control and got an incentive for better work. The progress of commutation, however, was slow and irregular, and many lords used their power to enforce the system of forced labour as long as possible. Gradually, however, they had to give way and ultimately all their demesne land had to be either cultivated by wage labourers or to be let out to others for cultivation. In England and the more advanced parts of the Continent, land came to be leased for money rentals, for terms of years or for life. In other parts of the Continent, it was let for a share in the crop and this formed the basis of the metayage or share-cropping system, which has lasted almost to the present time.

The above influences not only affected the tenure of land, but also worked to the advantage of the personal status of the villeins. A man was bound only by blood, i.e., only if his immediate ancestors could be proved unfree. It became increasingly difficult to prove bondage, when the freedom of movement increased with the growth of the towns. A man might run away from his manor to a town or another manor and became free there. The lords found it increasingly difficult to exercise their right of pursuing and capturing villeins, who had run away from their manors. Thus, by the end of the 15th century, manors had been dissolved, villeinage had come to an end and personal freedom prevailed to a great extent. In Germany, an additional favourable influence had been the need of settlers for colonising the land eastward, which the Germans had lost to the Slavs after the fall of the Roman Empire and which they began to reconquer from the 12th century.

4. *The Feudal System.* The manor was an essential part of feudalism. To understand the former, it is necessary to understand the latter. It emerged gradually during the confusion and disorder that prevailed after the break-up of the Roman Empire in the West and helped to support the ruling class of Christendom. Under it, society took the form of a pyramid, with the King as the apex, the common people as the base and a hierarchy of greater and lesser lords between the two. Each class was bound to those above or below it by mutual rights and duties. The King was the ultimate and absolute lord of his realm, which was his private estate, and he could dispose of his lands and subjects as he pleased. But he could not carry on the whole Government himself and required an army. He, therefore, made grants of land and of privileges, such as the right to levy tolls and tributes and to dispense justice in certain areas, to the most

powerful among his followers. In return, they took an oath to be loyal to him, to obey him and to provide him with soldiers, whenever he needed them. These greater lords or vassals attached smaller lords to themselves in the same way. Sometimes, the initiative came from below by commendation. A free man, owning land but afraid of losing it in periods of anarchy, commended himself to a lord, i.e., became his man, swearing to pay him dues in services or goods and to help him in his quarrels, in return for protection from aggression. From top to bottom, those above were bound to give protection and justice and those below loyalty and economic services. In practice, however, the feudal system was far more complicated than this theory. There were numerous overlapping rights and it was very difficult to fit the towns into the system. The system, however, was the pattern to which the reality was supposed to conform as far as possible in most of Europe, during the Middle Ages.

A praiseworthy feature of feudal theory was that possession of property carried duties as well as rights. Tenure and service were to be always in balance, and rank imposed duties. In practice, however, there was local partition of authority. The King was only the first among equals and actually less powerful than some of the lords supposed to obey him. Many of the lords were practically independent and even exercised the sovereign right to coin money. Another defect of the system was the poor intellectual calibre of many of the rulers. In that age of violence, a man secured a dominant position far more by means of physical powers than of intellectual vigour. His descendants were likely to inherit his physical qualities as well as intellectual deficiencies.

In course of time, the lords remembered only their rights and forgot their obligations and the feudal system degenerated into exploitation of the peasantry, which had to provide forced labour, unpaid work and all manner of special dues and payments to the lords, while these lords were themselves the judges. Eventually, the sufferings of the peasants became so great that they often rose in revolt. But they were very backward and weak and their revolt availed them little and hardly threatened the feudal system. The real conflict arose between the old feudal class and the new middle class or bourgeoisie, consisting of master craftsmen and merchants, that rapidly increased in wealth and power, with the increase in trade that followed the opening of the sea routes to the Americas and the East, as a result of the voyages of Columbus and Vasco da Gama. When they became wealthy, the lords and barons went to them to borrow money. They lent the money, but insisted on certain privileges, which increased their strength. So the towns and cities inhabited by them grew up and became rivals of the feudal lords and even defied them. It was a long struggle, and frequently

the King, being afraid of the power of his own lords and barons, took the side of the cities. The Church, itself being a great landowner, took the side of the lords. The bourgeoisie, confident of its new increasing strength took up the offensive after a considerable time, and the feudal system was compelled to assume the defensive. The struggle went on for many years, but more and more in favour of the bourgeoisie, until, with the advent of the economic revolution, feudalism collapsed altogether.

India has had, not the European kind of feudalism but something similar to it. The Jahagirdars, Inamdars and other grantees as well as noblemen, created by the Indian Kings and Emperors, corresponded to the feudal lords of Europe. In India also an economic break-down occurred in the 18th century and the feudal class became out of date. But even when feudalism began to collapse in India, it did not disappear for a long time, and even when it had practically disappeared, its outward form continued. Even today there are many relics of feudalism in India, and our Indian states, with their rulers, nobles and lordlings, still maintain many feudal customs.

5. *The Enclosure Movement in Europe.* The system of cultivation, which had prevailed during the Middle Ages, was, as explained above, a communal system of open unfenced fields and strips. This system discouraged improvements in cultivation. But as the demand for grain increased with the growth of local markets, the cloth industry and towns, enterprising peasants began to exchange their scattered strips, to consolidate their holdings and to build a hedge round them, to keep out beasts and weeds. This frequently meant the withdrawal of their neighbours' rights of common. The amount of land enclosed in this way for improved arable farming went on increasing gradually, piecemeal and unevenly, without attracting much attention. But during the 16th century, another kind of enclosure, that for sheep farming, took its place and raised a real social problem.

The first country, in which this important change occurred, was England. The English landlords came early under the influence of commercial ideas and took steps to put their lands to the most profitable use. In the 16th century, they increased their control over the land at the expense of the peasants and substituted sheep farming for corn growing on their estates, as the production of wool had become more profitable than that of corn, owing to the rise in the price of wool brought about by the growing importance of the cloth industry. Moreover, sheep farming involved much lower labour costs, as one shepherd could look after 1,000 sheep. In some cases, the lords and their lessees secured land for sheep farming by simply evicting their

copyhold tenants, who held land at the will of the lords, and throwing the scattered holdings into pastures. This arbitrary procedure, however, could not be applied to free holders, whose tendency could be upheld by the King's Courts. In such cases, the lords resorted to the indirect methods of securing their object, *viz.*, harassing the tenants by raising rents, reviving ancient tolls, which had fallen into disuse, imposing various fines or fees, overstocking the common pastures, so as to prevent the tenants from feeding their beasts, etc., and thereby making the tenants' position untenable. This change involved a social upheaval, which destroyed the mediaeval village community in many parts. The eviction of tenants meant the depopulation and ruin of many villages. This was the beginning of the process of individualist and capitalist farming that was completed in the 18th century, as well be explained later, by the second Enclosure Movement.

6. *General Conditions of Agriculture.* The progress of agriculture was checked by an important physical condition, *viz.*, the loss of fertility by the soil, if it was cultivated without a break. If crops are grown continuously on a piece of land, they gradually exhaust the plant nutrition in the land, which then becomes barren. Under the old economic system, the methods used to check this tendency were the use of animal manure, keeping the land fallow and the alternation of crops. Of these, the first method was the best because it restored most of the fertility of exhausted soil. But the amount of farmyard manure available to the farmers was always limited, because they could not maintain more than a limited number of animals, on account of the lack of winter-roots and the resulting difficulty of keeping animals alive during the winter. The only fodder available in the winter was the hay produced during the summer and as this was inadequate to feed all their animals, the farmers had to make a rough estimate of the number of animals that they could hope to feed during the winter and to kill the rest and to salt their bodies for consumption during the winter.

Hence, the farmers had to use the method of fallowing for restoring fertility to the exhausted soil, by resting it and giving it time to recuperate, as explained before. The field that was kept fallow, was ploughed twice or thrice to remove the weeds and to expose the earth to the fertilising effect of the sun and air. In the three-field system, which was the best system of agriculture known in Europe, fallowing was accompanied by the alternation of crops. Different crops use up different elements of the soil and if two different crops are grown alternately on the same plot of land, its fertility is maintained longer than it would, if the same crop were to be grown on it continuously. So the cultivated land was divided into three parts, known as fields, and each field was cultivated according to a three-course rotation of wheat, barley or oats and fallow. The three-field

system was a method of intensive cultivation meant to solve the difficult problem presented by the fact that it was no longer possible to take up the cultivation of virgin land, in place of that which was exhausted, all the cultivable virgin land being already brought under cultivation. But the system was wasteful, as it depended upon keeping 1/3 of the cultivated land fallow every year. This waste could not be removed until the 18th century, when the agrarian revolution set in.

7. *The Indian Village.* The organization of the Indian village was similar to that of the mediaeval European village in several respects. The compact village, the scattered holdings and the communal routine of the open fields dominated the rural life of India as they did that of mediaeval Europe. In Europe, however, the Imperial system and feudalism obscured the ancient village community, suppressed the rights of the peasants in the common lands, disintegrated village solidarity, absorbed most of the profits of agriculture and debased the peasants. In India, the village communities were far more widespread and enduring, and the common pasture, the peasants' rights of grazing and cutting fuel and the communal control of woodland, pastures and irrigation channels persisted for centuries. The village communities, with the self-sufficient structure of the village, preserved the civilization of India through the numerous invasions and changes of rulers and governments. The persistence of the village organization in India in the same form for many centuries was a special feature. It is, however, incorrect to suppose that the life of the villages remained entirely unaffected by wars and revolutions. Sometimes, the villages successfully beat off the enemy attack, but more often the enemy was too powerful, and plunder and destruction seriously affected the economy of the villages, which found recovery to be slow and difficult. This was especially true during the period of political chaos that prevailed in India with the decline of the Mogul Empire. The enduring nature of the village organization was due to the lack of communication and the resulting absence of centralised system of administration. There were only a few natural waterways. There were hardly any proper roads, except a few built by the Moguls, and those that existed were often in a very unsatisfactory condition and overrun by bands of robbers.

The size of the village was different in different parts of India. In the plains, it was of a considerable size, comparable with a township in England. In the hilly and barren areas, it was much smaller and corresponded to a hamlet or even scattered homesteads in Europe. The holdings in it, whether cultivated by peasant proprietors or tenants, were always small. The rights of the peasants in their land were determined by the nature of the tenure. Several tenures prevailed but they could be broadly grouped into two classes, viz., ryotwari and land-

lord. In the ryotwari village, the land was owned, not by a single person or family, but by a number of peasant proprietors. In the landlord village, it was owned by a single landlord or a group of co-sharing landlords. In the former case all the peasants were the tenants of the single landlord. In the latter, in some cases, all the land was cultivated jointly by the co-sharers, without any definite division of fields among them, whereas in other cases, such a division had been effected. Moreover, in some cases, the co-sharers cultivated all the land themselves, in others they let it out to tenants. The ryotwari tenure prevailed in Bombay and Madras, the single landlord or Zamindari system in Bengal and the co-sharing or Mahalwari system in the Punjab and Agra province.

The political and economic disorder that prevailed during the 17th and 18th centuries resulted in the expropriation of many village communities. Continuous warfare depleted the imperial treasuries and compelled the Emperors to grant jahagirs to military officers and soldiers by way of the satisfaction of their dues. Jahagirs were also granted as bribes for the surrender of forts, which could not be captured by the force of arms. On the other hand, with the fall in the revenue collection, the Governors of the provinces were compelled to reduce their military establishments. This encouraged men belonging to agricultural-military tribes and castes as well as feudal chiefs to carve out estates for themselves. This brought about the expropriation and displacement of many village communities by warlike and landlord families, castes and tribes¹⁰. Later this process was helped by the farming out of the land revenue collection. The revenue collectors gradually transformed themselves into landlords in Bengal and parts of Madras and came to be reorganized as such by the East India Company.

The differences of land tenures, however, did not make much difference in the organization of the village. The common bond for the ryotwari village was the headman and the common artisans paid by the villagers and that for the landlord village was the single or group ownership. The village was made up of a number of cultivated holdings, with some waste area attached to it. It had a central site on which stood the dwellings of the villagers and the village lands were spread round it. In some cases small farm houses were built on the holdings, but the peasants usually lived in their cottages in the central site for the sake of security. The village had often a grove and a sort of public office, where the village officers did their work. There was no communal property in the cultivated area of the village. Each cultivator had his own holding and managed it in his own way. He cultivated mostly small open

¹⁰ See Mukerjee, **The Economic History of India**, p. 75.

fields with the labour of himself and his family and occasionally with hired labour. He obtained the necessary agricultural capital from his own savings, or from the village landlord or frequently from the village moneylender. He had to shoulder the entire responsibilities and risks of cultivating his holding. The nature of his cultivation was determined by the self-sufficiency of village. Most of the production had to consist of foodgrains consumed in the village and crops like oil-seeds, cotton, etc., necessary for meeting local needs. The only important crops which could not be produced in all villages were sugarcane and the better varieties of cotton. These were produced in those villages where conditions were suitable and sent out. But the trade in them even was limited and confined to certain areas¹¹. Otherwise, the cultivators personally carried whatever produce they could spare to the nearest market and exchanged it for salt and a few other articles of comfort which were not obtainable in the village.

The village was the unit of administration and had its own officers. The hereditary headman known as the patel was very important in ryotwari villages. He maintained order, collected land revenue, performed small magisterial duties and held a plot of land as payment for these services. The village accountant, known as the patwari, talati or kulkarni, kept the village accounts and records. The village watchman, called the chowkidar, reported crime and arrested offenders. The village panchayat, consisting of the elders of the village, functioned as a court of arbitration, and by maintaining and enforcing customs, held the village community together¹².

Each village had its group of artisans, *viz.*, a carpenter, a blacksmith, a potter, a barber, a cobbler, a washerman, a goldsmith, a petty shopkeeper, an oilman, etc. Numerically they were far more important than the handicraft workers of towns, although their methods of production were very backward. They were the hereditary servants of the villagers, and the services which were regularly required by all the villagers, and which they were bound to perform, were measured by kind, not by quantity, the villagers providing the materials used. They were paid for the services by means of plots of land, which they held rent-free from the village, and a fixed share of the annual harvest of each villager. Besides these, there was an independent class of artisans, such as weavers, dyers, etc., whose services were required only occasionally. These latter were paid for each job in grain or by being allowed to keep a fixed proportion of the raw materials provided to them by their employers. The difference between these two groups of artisans was chiefly in

¹¹ See Gadgil, **The Industrial Evolution of India**, p. 64.

¹² See Jathar and Beri, **op. cit.** p. 131.

the method and time of payment and not in their economic condition. It was true that the weaver or the dyer obtained no orders and no payment, if the harvest failed. But the other class fared hardly better in this situation, because the proceeds of their share of the harvest were very much less than the ordinary. The economic condition of both the groups depended upon the nature of the harvest.

The village had another group of servants, who were not artisans, *viz.*, the watchman, scavenger, etc. They were the unskilled labourers, and as their plots of land were too small to maintain them, they had to work as day labourers and occasionally made baskets, mats, etc., and wove coarse cloth. Thus, the villagers who were not wholly cultivators, formed three distinct, social and economic groups. The headman, the priest and the accountant formed the highest group, then came the artisans, and the non-artisan village servants came last.

This system of hereditary servants made each village community thoroughly compact and able to withstand most outside unfavourable influence, by ensuring the provision of all the services required by the community, especially during periods of trouble. But it prevented progress in the methods of production of the artisans and kept them in a state of inefficiency. As each artisan had to perform all the miscellaneous duties of his occupation, he could not specialise and, therefore, could not develop division of labour. Moreover, the system discouraged efficiency, by protecting the artisan from competition. For instance, a villager could not be willing to buy even superior pots made by the potter of another village, when he had to give a share of his harvest to the potter of his own village. This freedom from competition was also responsible for the total absence of localisation of industry in the country¹³.

The villages suffered periodically from famines owing to the lack of communications with the outside world, the vagaries of the monsoon and the absence or shortage of facilities for irrigation. Several Muslim chroniclers and European travellers have given us graphic accounts of those that occurred during 16th, 17th and 18th, centuries. Until the means of transport were developed, famines meant a lack of food as well as of employment. The miseries of the people were greatly increased by the lack of fodder, because a large proportion of their capital was invested in their cattle. Famine-stricken people, therefore, tried to migrate temporarily to those areas, which were well provided with food, but in the wandering in search of food and fodder, the mortality among the people and the cattle used to be great. Famines also discouraged agricultural progress. The feeling

13 See Gadgil, *op. cit.* p. 11.

that a famine was bound to occur periodically checked the peasant's desire to improve his land or cattle. Moreover, famines had a disastrous effect on the artisans. Many of them, particularly weavers, had to perform whatever rough manual labour was available, lost their skill, found it hard to take to their occupation again and sank into the ranks of ordinary day labourers.

During famines, many people sold themselves or their children into slavery for the sake of subsistence. Moreover, the sale of the wives and children of those cultivators, who could not pay the land revenue or debts, was sometimes allowed by the Provincial Governors under the Muslim rule. Famines caused indebtedness which, thus, was responsible for a considerable amount of slavery. Further, the Portuguese and the Arab merchants carried on a profitable but nefarious trade in slaves, captured from the outlying parts of India. Prisoners of war were distributed under the Mugal regime as slaves among the fief-holders and officers, and their descendants multiplied and continued in slavery. The disintegration of the village communities and the loss of cherished customary rights and privileges resulting from the grant of jahagirs, mentioned before, brought into existence a class of agrestic serfs. The slaves and serfs were employed as domestic servants as well as farm hands, bound to the estates of their masters and receiving an allowance of grain and coarse cloth for subsistence.

CHAPTER II

THE OLD ECONOMIC SYSTEM (*continued*)

1. *Towns in Mediaeval Europe: Handicrafts: Merchant Gilds: Craft Gilds.* The earliest towns were the Roman military stations and the Roman or Syrian trader followed the Roman soldier, because without adequate order and without adequate defence to maintain that order, trade could not flourish. Moreover, the sites most suitable for fortresses were often also those most suitable for traders, such as ports and river and road crossings. Further, with the growth of Christianity, traders and artisans grew up round the sees of bishops, monasteries and places of pilgrimage and formed towns. Furthermore, gatherings of merchants took place in centres of justice, such as the meeting places of shire courts and led to the formation of towns. Finally these factors had to be supported by the stimulus of growing trade, which was chiefly foreign trade. In a period of lawless violence, each group of merchants and artisans required protection and usually obtained it from a lord or bishop, until it became strong enough to defend itself and wealthy enough to buy for itself, by means of a charter, liberties, exemptions and rights, which gave it a place as a town, distinct from a manor, in the life of that age. Towns increased in numbers and importance during the age of the Crusades (1095-1270), which was attended by the growth of commerce and showed that Western Europe was adopting new interests and new means to satisfy them.

The rights which the charter generally gave the inhabitants of a town were the right (1) to be governed by a mayor and corporation chosen from among themselves, (2) to be assessed as a whole, and not individually, for the dues of the king and the lord, (3) to levy tolls upon themselves or strangers for the maintenance of the town, and (4) to form a Gild Merchant. Inhabitants of a corporate town, i.e., a town having a charter were free men by the law, and justice was dispensed among them by the mayor's court. Moreover, any villein, who managed to live in it undetected for a year, became a free man and could not be forced to return to his master. Hence, the rise and growth of towns introduced radical changes in the social, economic and political order of society. Firstly, a middle class, the "Bourgeoisie" came into existence between the feudal lords and clergy and the lower class working in the fields and became the backbone of the new society. Secondly, in political matters, this class secured a position by the side of the lords and clergy, as a

"third" estate. Its ability to supply revenue for the expenses of government became so substantial, that it had to be consulted in all matters concerning the raising and spending of taxes. As it represented the interests of the producers and consumers, these interests came to be protected from the feudal interests, inherited from the old order of society. Finally, in economic life, the development of exchanges enabled a fuller use of natural resources, and an extension in the division of labour and a specialisation in occupations that increase the efficiency of production, widened the range of consumable goods, increased their quantity and improved their quality. But it also created new problems of the regulation of markets and prices¹.

In spite of their importance, the size of the towns, judged by modern standards was small. Even important towns had a population of no more than 5 or 10 thousand and grew slowly. Each town was protected at first by a ditch and later by walls and towers. Space in it was, therefore, restricted and the population, in spite of its small size, was often seriously congested. Streets were narrow, winding and dirty and the houses were flimsy, being built of wood and thatched with straw, and having no chimneys. When the houses were made more substantial later, the higher floors obstructed light and air. There was no system of sewage disposal, so that the water obtained from wells was often contaminated. This caused frequent and destructive plagues, and the mortality was heavy. The towns could maintain their strength only by means of continuous immigration from the rural areas.

The towns were the cradle of handicrafts, which met the primary industrial needs of the people. The town artisan or craftsman supplied these needs. He combined in himself all the functions, which in the modern industrial age are performed by different specialists. He was capitalist, as he owned all the tools and materials needed for his craft. He was foreman, as he supervised the work of those who helped him. He was a worker himself, working with his helpers. He was his own purchasing and selling agent. This combination of functions was not favourable to efficiency according to modern standards, but the craftsman's position was secure. There was no power machinery, and hand tools and manual skill were all-important. Processes were fixed by tradition and inherited from one generation by another. Products were not subject to the fancies of fashion and were of unchanging standard and pattern. The market for the purchase of raw material and the sale of finished goods was small and stable. All competition was checked by the gilds. Thus, the craftsman was his own master in all matters pertaining to his work. His assistants looked forward to becoming

1 See Clive Day, *op. cit.* p. 23.

master craftsmen. He was free from the uncertainties of competitive and speculative markets. He could, therefore, direct all his energies to creative work and pour his entire personality in the creation of artistic products. Many writers regard this as the golden age of art.

One of the rights conferred upon a town by its charter was the right to establish a Gild Merchant. The word in Anglo-Saxon meant a contribution to a common fund. It was an association of merchants for mutual economic support. It regulated the trade of the town and reserved it for its members. No non-gildsman could trade in the town without the gild's consent, then only subject to tools and restrictions. Retail trade was forbidden to non-gildsmen altogether. Further, gildsmen had the first right to purchase goods coming to the town. Cornering and speculation were discouraged by providing that if a gildsman bought a large quantity of any commodity, the others could claim a portion of his purchase at the same price and that officers of the gild could buy commodities on its behalf. Each gild also controlled the trade between its own town and others and tried to secure for its members the right of trading with other towns, free from tolls. The gild merchant had non-economic functions also. Its members worshipped and feasted together and helped each other in times of need. Among its members, it promoted a spirit of co-operation and selflessness and discouraged dishonesty. But it established an exclusive and short-sighted monopoly against all others. It excluded all non-members from its trade and made the conditions of admission so rigorous as to keep out most of the outsiders. It failed to realise that if outsiders were allowed to trade in the town, they could expand its trade and increase its wealth.

On the Continent, the gild merchant was made up of the aristocracy of the trading class, dealing in foreign goods and important domestic goods like cloth, and refused admission to the craftsmen "with dirty hand". In England, however, artisans were admitted, if they were traders even in a small way. Hence, on the Continent the craft gilds had to carry on bitter struggles against the gild merchant in order to assert the rights of industry. In England such struggles were unnecessary, and as different crafts established their own gilds, the merchant lost its importance and was merged into the government of the town in the 14th century.

As the crafts went on increasing in number, the gild merchant was either unable to supervise them or unwilling to admit them to membership. So, the craft gild took over its economic and social functions, and guaranteed the standard of workmanship in their particular crafts. Each craft gild consisted of small master craftsmen plying the particular craft and producing goods

for a limited local market. In order to become a master craftsman, it was necessary to serve as an apprentice to a master for a term of years, varying from 4 to 10 years, but often 7. The apprentice was bound by a legal document called an indenture, to obey his master in all respects, in return for being taught the particular craft. He had to perform menial work also for his master, who was supposed to be in the position of a parent to him and to look after his education, conduct and morals. On finishing his term he became a journeyman (meaning day worker) and helped his own or another master in return for wages, until he collected the small capital and stock-in-trade required to start business as a master himself. He then became a member of the gild and took part in the election of its officers called wardens. The journeyman was a graduate apprentice, and continuing to live with his master, who remained his moral guide, was supposed to continue his education and progress in the trade. The complete control of the master over the apprentices and journeymen opened the door to abuses, and sometimes led to ill-treatment of the latter by the former, and even to personal violence. The journeymen, however, were better able than the apprentices to protect themselves from such malpractices.

A craft gild could effectively protect and promote the common interests of its members, only if it had the power to compel all those in the town, who carried on the particular trade, to become its members and to abide by its regulations. Monopoly, therefore, was essential for its existence. Until the monopoly was abused in a later period, however, the gilds proved to be very beneficial to all the workers engaged in the crafts. They gave the workers independence, moral strength, self-respect and ambition. They maintained, promoted and supplied technical information. They prescribed standards of quality and the use of proper materials in manufacture, and their officers inspected the goods of members to ensure that they were of the proper quality. A craftsman, who turned out inferior or fraudulent goods, was fined, because he was disgracing the craft and bringing down the price. The gilds, thus, stimulated the good work and energy of the workers.

The gilds had several regulations for maintaining equality among their members. The hours of work were fixed and announced by the daily ringing of a bell at opening and closing. Night work was prohibited. The number of helpers, whom a master could employ and the number of jobs which he could take up, were regulated, to prevent him from getting an undue advantage over his fellows. The length of apprenticeship and the wages of journeymen were fixed. Members were not allowed to work for a customer, who had not paid his debts to another member. They could share in the bargains made in the purchase

of raw materials and were not allowed to compete with each other in the sale of the finished products. Prices were regulated and were the same for all. The regular business and social meetings of the gilds and the framing and enforcement of varied and meticulous regulations provided valuable experience in administration and self-government. The gilds were democratic, as all the master craftsmen were equal members, as all journeymen could become masters later and as all the gild officers were annually elected by the members.

Even when the gilds were doing the useful work mentioned above, there were various drawbacks in it. While the weaker members were protected and their standard raised, those who possessed superior ability, energy and ambition, were checked and compelled to keep step with the former, and thereby prevented from becoming the leaders of progress. The methods of production were determined by tradition. The old methods were regarded right, all changes were wrong. Further, the regulation of prices and quality raised difficulties which could not frequently be met. There were numerous complaints of fraud, adulteration and shoddy work and many of them could not be dealt with satisfactorily, so that the general standard of work was far from high. Finally, gilds exploited their monopoly by misusing the rules, which were meant to maintain equality among the members. Thus, rules prohibiting competition in the purchase of raw materials and the sale of finished goods, were used to give low prices to the producers of the materials and to charge high prices to the consumers of the finished products; and rules prohibiting master from enticing journeymen working with another master, were used to keep the wages of the journeymen low².

The gild system characterised the industrial life of Europe for several centuries after the Crusades. At the height of their power, the gilds often secured a political domination. In many countries, they came to be virtually identical with the townsmen. The division of labour between the manors and the towns increased and the former gradually tended to become the simple purveyors of raw materials for the gilds. In their later developments, however, gilds outlived their usefulness, and became a hindrance to society. Some of them even became instruments of oppression. With the growth in the population of the towns, the number of journeymen increased, especially as the early regulations limiting the number of journeymen, whom a master could employ were either relaxed or evaded. The masters, therefore, who ruled the gilds and enjoyed a superior economic and social position, became afraid of overcrowding. They tried to meet this danger by making admission to their numbers increasingly

2 Cf. Clive Day, *op. cit.* p. 35.

difficult. They could do this by increasing the restrictions on admission to the gilds. So, entrance fees were raised, superior birth and social standing were demanded, and as a test of good workmanship, something so elaborate and expensive was demanded that most journeymen found it impossible to fulfil the conditions. The gilds were thus made into close preserves for the benefit of their members, and a class of permanent wage-earners grew up.

Another development of gilds came into those crafts, which involved a number of successive processes in the making of goods, such as woollen cloths, saddlery and cutlery. The crafts, which controlled the separate processes, lost their independence and became subordinate to, and came under the control of, those which dealt with the sale of the finished goods. The former in effect came to depend on the wages paid to them by the latter. Further, kindred small trades were consolidated into groups, and in each group, those masters, who had superior capacity for driving bargains and making contracts on account of the possession of larger capital or better judgment or both, tended to drop out of manufacturing to become middlemen pure and simple and to dominate the other masters.

The result of all these forces was the rise and growth of capitalism and big business, with the inevitable permanent wage-earners forming a separate labour class. The latter formed labour associations to protect their interests, demanded higher wages and better conditions of work, made collective bargains and even resorted to strikes to enforce their demands. They were the forerunners of the modern trade unions, but lacked the power and permanence of the latter, owing to the strong opposition of the gilds and the town and national governments. These developments took place in the 15th and 16th centuries.

As regards the outside world, the trade policy of each town was to obtain as much food and raw materials from it as possible at the lowest price. Hence, it was laid down that people not belonging to a town but bringing goods into it for sale, must offer them in a definite market-place and at definite hours, to enable the townspeople to compare, select and bargain most advantageously. Outsiders were not allowed to compete with the town retailers by hawking their goods or opening a shop. When a bargain was in progress, other townspeople must not disturb it, but could demand a share in it, when it was settled. The principle underlying these and other detailed regulations regarding trade was that competition was good in dealing with the outsiders, but undesirable in dealing among the townspeople.

2. Towns in India. Most of the towns owed their origin and prosperity to one of the following reasons:—(a) They were places of pilgrimage or sacred places, e.g., Allahabad, Banaras,

Gaya, Puri and Nasik. Most of these places were Hindu and enjoyed continuous prosperity for many centuries, on account of the prolonged predominance of the religion which gave them importance. Brass, copper and bell-metal industries, turning out vessels for keeping sacred water and utensils used in worship, prospered in these towns, as there was a steady demand for these articles from the pilgrims. (b) They were the seats of courts or capitals of provinces, such as Delhi, Lucknow, Lahore, Tanjore and Poona. The court might be that of an emperor or a chieftain. These were the most important and the most numerous towns. But they were liable to decay, as soon as the support of the court disappeared, as they depended entirely on the nobles and their retinue, e.g., Paithan, Devri and Vijayanagar after the fall of the Hindu dynasties, and Ahmednagar, Golconda and Bijapur after that of the Muslim dynasties. In these towns, the luxury industries, such as the wire and tinsel industry, fine textiles, embroideries, fine gold and silver work, and stone, ivory and wood carving, predominated and were reputed for their artistic excellence. The prosperity of these industries depended entirely upon the custom of the court and the nobles. The staple goods required by the ordinary people were produced in the villages. (c) There were the commercial towns, owing their importance to their peculiar position along trade routes. Thus, Mirzapur, on account of its being the highest navigable point on the Ganges, was a very important town on the trade route between Central India and Bengal, and a large proportion of the cotton trade of Central India passed through it. Again, Patna was an important centre on the trade route between Bengal Northern India. The number of such towns was not large, but they had greater stability than those which depended on courts and nobles³. On the whole, in relation to the state of industries in India, the urban development of the country was far advanced. Thus, Clive had stated that the population of Murshidabad at his time was greater than that of London. North India and Bengal had many large towns.

Although many of the towns were hardly better than overgrown villages, they had a greater variety of trades and occupations, a better organization of industries and wider markets than the villages. They had also frequent cash payments, an efficient organization of credit and a well-developed machinery for the collection of goods and their distribution for sale. Hundis or bills of exchange were used to a substantial extent for trade purposes, and money was transferred easily from one account to another in most parts of India. The commercial house of the larger towns not only dealt in money but also collected goods and distributed them over large areas.

³ See Gadgil, *op. cit.*, pp. 7-9.

The handicrafts of the Indian towns were on a high level of excellence and their products possessed a world-wide reputation for many centuries. The Indian Industrial Commission stated in 1918: "At a time when the West of Europe, the birth-place of the modern industrial system, was inhabited by uncivilised tribes, India was famous for the high artistic skill of her craftsmen. And even at a much later period, when the merchant adventurers from the West made their first appearance in India, the industrial development of this country was, at any rate, not inferior to that of the more advanced European nations". Delicately woven fabrics of India were appreciated by the Greeks, and the Romans used the products of Indian handicrafts to a substantial extent. Many foreign travellers have bestowed high praise upon their high artistic standard, without sacrificing utility.

The successive invasions of India by foreigners from the 11th century harmed the urban handicrafts for some time, but they revived fully when more stable conditions were established under the Moghul rulers, and their products, chiefly cotton and silk goods, were imported by Persia, Syria and Arabia to a substantial extent. This trade attracted European traders to India, and their rivalry in India was for the purpose of securing and developing her foreign trade in the artistic products of her urban handicrafts. The very profitable trade of the East India Company, which emerged victorious from this rivalry, was chiefly in India's fine linens, calicoes, corahs, woollen and silk fabrics, embroideries, cutlery, carved sandalwood articles, jewels, etc⁴.

The chief urban industry was the textile handicrafts, and among them the cotton industry was the most important and the most reputed. It depended largely upon the patronage of courts and its chief centres were Dacca, Krishnnagar, Chunderee, Lucknow, Ahmedabad, Nagpur, Umrer, Madura, etc. Silk and brocade handicrafts flourished in Murshidabad, Maldah, Banaras, Ahmedabad, Poona, Yeola, etc. Artistic woollen Kashmir shawls were produced in Kashmir and at Amritsar, Ludhiana and several other Punjab towns. The chief centres for metal crafts producing brass, copper and bell-metal articles, were Benaras, Nasik, Poona, Hyderabad, Vizagapatam and Tanjore. Other metal crafts, such as enamelling and damascening of arms and shields, were carried on in Sialkot, Kotli, Lahore and other towns in the Punjab and Sind. Crafts turning out enamelled jewellery and artistic stone carving, had reached a high standard in the towns of Rajputana. Other crafts, such as gold and silver thread, marble carving, sandlewood carving, glass bangles, ornamental rings, leather work, paper-making and perfumery were practised in a number of towns. The shipbuilding indus-

⁴ See Jathar and Beri *op. cit.* p. 133.

try prospered in several coastal towns, as the country had large quantities of good timber, of which ships were made until modern times. Thus, the number of handicrafts practised throughout the towns of India was large, and most forms of artistic handicrafts then known flourished in one town or another.

In the handicrafts, as much division of labour as was possible, with the simple appliances then used, was practised, and it was substantial. Indeed, without it, superior workmanship could not be secured. Of course, it was much less than that which prevails in the modern mechanised industries. There was a certain amount of localization of crafts, owing to nature limiting the production of certain raw materials to particular areas, the force of tradition and the reputation built up by certain towns regarding certain products. But it was imperfect and confined only to those special crafts, which required the highest skill, and even then, owing to the great difficulties of transport, the demand for these specialised goods, outside the towns in which they were produced, was very limited. Owing to the same difficulties, the sale of the products of most handicrafts was generally confined to the towns in which they were produced. Thus limitation on the size of the market had an unfavourable effect on the size of the crafts and the development of their internal organization. Nevertheless, they were better organized than all other productive occupations, including the village crafts. They were organized into trade guilds in which the occupations were not only hereditary, but also based on the caste system. The guilds determined the conditions of membership and looked after the welfare and the quality of work of the members. In some cases, the wealthiest merchant of the town was made the titular head of the guilds and called the Nagarseth, i.e., the lord of the town. Each guild was managed by a separate body of Mahajans (great gentlemen), consisting of all the freemen of the particular caste, but a special position was given to seths, i.e., chiefs of the guild, who were usually two and had a hereditary position. The only other office-bearer was the Gumasta or paid clerk⁵.

The independent craftsman in India, as in all other countries, was not a capitalist. He usually worked to order, with simple and inexpensive appliances, on the materials generally supplied by the customers. The artisan could learn the secrets of his craft without difficulty from his father and had a secure position on account of the system of hereditary crafts. In spite of these advantages, the economic condition of the craftsmen was not satisfactory, because for custom they had to depend upon the whims and fancies of the noblemen, who often did not pay them promptly or regularly, and sometimes resorted even to ill-

5 See Gadgil, *op. cit.* p. 38.

treatment. The ordinary people were too poor to afford their artistic and costly goods. Further, many of them fell into the clutches of big merchants, who exploited them by advancing them raw materials or money and obtaining their finished goods at law prices⁶. There was no middle class, which is the backbone of modern society. The old society had only two sections, a handful of nobles and merchants at the top, with their armies of dependants and slaves, leading a wasteful and extravagant life and the vast masses of the population, who were poor, and on the result of whose sweated labour rested the pomp and pageantry of the imperial and provincial courts.

3. *The Mercantile System in Europe.* This nationalist system of economics was powerful in Europe during the 16th and 17th centuries, on account of the growth of national feeling that had been engendered by the growth of national states like England, France, Spain and Holland. In this system all commercial regulations were framed in very narrow spirit of national selfishness, because the mercantilists strongly believed that all commerce was a kind of warfare, in which one nation could benefit only at the cost of another. They also believed in the necessity of State control and direction of the economic activities of the nation for the purpose of increasing national wealth, as a means to national power. Their doctrines briefly were that large acquisition of gold and silver made a nation rich, that a rich nation alone could be politically powerful and that a favourable balance of trade alone enabled a nation to acquire large quantities of gold and silver, because if its exports exceeded its imports, the other nations must pay for the balance to it in these metals. The fallacies of these doctrines have been fully exposed by modern economists. But in the old economic system, there was universal faith in them, and all commercial regulations were directed to the end of securing a favourable balance of trade. Imports were checked by heavy duties or prohibitions on foreign goods. Exports of national goods were stimulated by bounties on production or export and by retaining the exclusive possession of colonies as markets. National shipping was stimulated by passing Navigation Laws, which laid down that the nation's trade must be carried in ships belonging to the nation. Trading companies were encouraged by means of grant of monopolies for trading with definite areas, and no nationals could trade with the allotted areas; without being members of the appropriate companies. Thus, England, France, Holland, Denmark and Sweden gave their East India companies the monopoly of trade with Asia. England also gave the African, Levant, Russian and the Hudson Bay companies the monopoly of trade with Africa, the Mediterranean, Russia and North America respectively.

⁶ See Jathar and Beri, *op. cit.* p. 135.

The mercantile system was applied to the colonies also, which were regarded as existing solely for the purpose of promoting the prosperity of the mother country, by supplying it with raw materials and with a market for its finished goods. To secure these aims, foreigners were not allowed to engage in colonial trade, trading between the colonies and foreign countries had to be carried through the mother country, and only those industries were allowed in the colonies, that did not compete with the industries existing in the mother country. These rigorous restrictions of the colonial system, however, did not in practice bear hard on the colonies in most cases, because the colonies were primarily agricultural, and the trade between them and foreign countries would generally have passed through the mother country, even in the absence of restrictions.

4. *The Organization of Trade.* Trade was conducted periodically, and the continuous buying and selling, which are an important feature of modern commerce, did not exist. Exchange transactions were carried on only at fixed times and places. This was unavoidable owing to the difficulties of communication and the small volume of trade, and most of the trade had to be conducted through the periodical gatherings of buyers and sellers at weekly markets and the annual or bi-annual fairs. The weekly market was a centre of local trade, and even in the 18th century in Europe, nearly $3\frac{1}{4}$ of the trade was local in character. Each town had a market to which the peasants of the surrounding area brought their produce, mostly foodstuffs, and sold it direct and retail to the townspeople. With the exception of a few stalls attached to the workshops of a few artisans, such as tailors and shoemakers, there were no retail shops. The townspeople had to obtain their supplies of food from the periodical markets, and other things at long intervals from a fair or a travelling pedlar. Hence, the houses of even fairly well-to-do people had big cellars and large supplies, which could be purchased only at intervals, were stored in them.

The producers and consumers came into direct touch with each other at the weekly markets, without a middleman. But the fair was chiefly a gathering of merchants and was a centre of national and international trade. It was held once or twice a year and continued for some weeks. Merchants from all the countries came to it with their goods. Chains of fairs were spread along the trade routes that lay across the Continent of Europe. The fairs held at Stourbridge near Cambridge in England, Beaucaire and Dijon in France, Leipzig and Frankfurt in Germany, Nijni-Novgorod, Moscow and Irbit in Russia, Siniaglia in Italy and Medina del Campo in Spain were important even in the 18th century. The merchants brought all the goods to the fairs in waggons or on the backs of ponies, and the buyers

had to ascertain their qualities by inspection, as buying by sample was unknown. Hence, the goods had to possess high value in small bulk and were luxury goods for the rich. The daily needs of ordinary persons had to be met from the local markets.

In addition to the above periodic but regular trade, an irregular and itinerant trade was conducted by small travelling pedlars, who carried many articles in their pack. In the 17th century, a large number of Scotch pedlars carried on their trade in Eastern Europe and brought the scattered and backward agricultural communities of that part into touch with Western Europe. But in most countries, a prejudice prevailed against them and they were often regarded as hardly better than robbers and were subjected to galling restrictions by the authorities at the instance of the regular merchants, who belonged to gilds and who regarded the pedlars as interlopers. In spite of these handicaps, the pedlars plied their trade successfully until the railways came.

CHAPTER III

SOCIAL AND RELIGIOUS INSTITUTIONS AND THEIR INFLUENCE ON ECONOMIC LIFE

1. *Historical Development of Social Institutions.* These institutions developed largely to meet the economic needs of the persons concerned in relation to the environment in which they found themselves.

(a) *The Tribe.* In the first chapter it was shown that our ancestors wandered about in small groups of individuals, the number of each group being determined by the availability of food in the shape of wild fruit, nuts, game and fish. At first, in each group there was promiscuous pairing. It was gradually replaced by some form of temporary marriage, in which kinship was counted through the mother, because in such conditions of group marriage relations, it was difficult for the child to know its father. These consanguine groups existed everywhere at the dawn of history and were known as maternal tribes, because their members traced their kinship through the mother. Wherever the social importance of women was strengthened by their economic importance, on account of the importance of the primitive agriculture or the domestic arts like weaving, conducted by them, the tribe became matriarchal, i.e., was governed by women. But whereas the matriarchal system of tribe government existed occasionally, the maternal tribes existed almost everywhere. In these tribes, there was no family in its modern meaning beyond the fact that the mother and her young children lived together. The only recognized relationship was kinship or membership in the tribe. Gradually, on account of the realisation of the harmful effects of inbreeding, the custom of entering into marriage outside the tribe was built up, and one of the strictest rules of primitive society, viz., the system of exogamy, or the absolute prohibition of marriage between members of the same tribe, came into existence. Each tribe traced its origin from and frequently took the name of, some mythical ancestor, the sun, the moon, the elements, an animal or a plant. Wherever circumstances favoured an increase in the size of tribes, they formed themselves into wider groups, all of them connected by at least distant blood relationship. The tribes organised common sports, social functions and worship, and their customs ultimately developed into laws and morals¹.

(b) *The Family.* Economic developments brought about

1 See Seligman, *op. cit.* p. 87.

the decay of the tribe. Wherever the pastoral and agricultural systems developed, private property in sheep, cattle and land came into existence, and the position of the father as the protector of the property, the builder of the house and the tiller of the soil became very important. The father, therefore, became the paramount factor in the economic evolution, and the patriarchal family came into existence. The word *famulus* in Latin meant a servant or slave. This shows that all the members of the new family group were regarded as the servants of the father. The family relations were fundamentally property relations. The family denoted the community of producers and consumers formed by the largely self-sufficing household, which included servants, slaves and members connected by common descent or marriage. The family tended to grow beyond blood relationship, either in the form of adoption or otherwise, and to embrace more than one unit of monogamic parents and their children in the form of the so-called large or joint family. Both tendencies were rooted in social conservation and economic devision and union of labour. The boundary between the family, as the narrower, and the tribe, as the wider group, of blood relationship, might be fixed by the external difference of living together in a household rather than in a settlement or grouping consisting of more than one household.

The father owned the land, sheep, cattle, wife or wives, children and slaves, and exercised supreme authority over them as well as the other relatives that belonged to the family. He gave his name to the wife and children, and the property of the family passed from one head to another. Marriage by capture was replaced by marriage by purchase, and the group union of the clan, by the polygamy and afterwards the monogamy of the patriarchal head. The unity and discipline of the family were far greater than those of the tribe. Appreciation of the close economic relationship of the members of the family brought about those filial and fraternal bonds which served as the basis of ethical progress. The greater vigour of the new patriarchal family system sapped the economic foundation of the old tribal system, and the latter disappeared. Territorial relations founded on the community of wider economic interests took the place of the old bonds of blood relationship in the tribe, and so the tribal society developed into political society, and the state and organized government came into existence.

Thus, the basis of the family was economic, and in turn it became the basis of social and political life. As the development of commerce and industry opened the way for independent activity to its different members, the old family came to be divided into the modern smaller families, with their closer circle of parents and dependent children only. With the further growth of freedom and competition in modern times, the family

ties have become still looser; women enjoy much greater freedom, divorce has become common, and children become independent earlier. This development has raised various social and ethical problems.

The family may be regarded as the earliest form of business organization for securing a livelihood. Both producers and consumers were members of the family. Each produced for all and each consumed the products of all. The family, however, was not suitable for business enterprise for earning profit. When competition became important, the abler members of the family prospered by making themselves independent of the family. This development took place earlier in commerce and industry than in agriculture, because those connected with the latter remained longer under the influences of custom and conservatism².

(c) *Help or Hire System.* When the family found that its production tended to increase beyond its strength and when the circumstances did not permit the help of slaves, it began to use the services of itinerant and independent workmen, like carpenters, shoemakers, tinsmiths, masons, tailors, etc., who temporarily became member of the family and were paid for their services. This help or hire system prevails even now in certain rural communities in Europe, Asia and America, in which the farmers hire labourers at harvest time and on other occasions, when they need extra help. This system, however, was merely traditional in form. The family continued to be the fundamental productive unit, supplied the raw materials to the hired workers, and received back the finished products from them. The latter provided only labour and sometimes the tools.

(d) *The Handicraft System.* The increasing importance of hired labour led to this system. The smaller families found that they required labour more frequently but less intensively. The larger families, on the other hand, found it profitable to make their superfluous members work for others. Hence, the practice of the consumer going to the producer replaced the former reverse practice and a class of permanent, settled and independent artisans or handicraftsmen, such as the village blacksmith, carpenter, potter, miller, weaver, etc., came into existence. They no longer worked in the house of the consuming family, and the raw materials and the finished articles no longer belonged to the latter. The artisans lived in their own homes, worked up there the raw materials purchased by them from the market and sold the finished goods to the consumers in their own shops situated in front of their homes. The system was called the handicraft system, because the worker carried out all the processes of his craft with his hands. It is true that, even before this, goods were made by the hand, but the word was used

2 See Seligman, *op. cit.* p. 90.

to emphasise the facts that industry had become important and that an independent class of workmen, who carried on business enterprise entirely on their own responsibility, had come into existence. This system was also called the gild system because, as seen before, the artisans in Western Europe and India organized themselves into gilds in the Middle Ages. The gilds, however, were a result and not the cause of the handicraft system, and in other countries of the world, the latter existed without the former. In their later developments as explained before, the gilds became exclusive and monopolistic, and so a hindrance to the industry. New industries were, therefore, started wherever possible, independently of the old crafts. Another and more important development, also explained before, was the growth of industrial capital owned by the richer craftsmen and traders. This capital could not be effectively used under the gild or handicraft system. The domestic system, therefore, gradually took the place of the old system.

(e) *The Domestic System.* The use of this phrase is likely to create confusion. Sometimes, it is used to denote the handicraft system in which the artisan worked at his home independently and was his own employer. At other times, it is used to denote a system, in which the worker no doubt worked at his home, but did so for a capitalist employer, so as to distinguish this system from its successor, *viz.*, the factory system, in which the worker no longer works at home. In the domestic system, in the latter sense, the roles of the employer and the workman were separated altogether. As capital made production on a larger scale possible and as the market was widened, the individual workman could no longer control the means, or create the machinery, for marketing his goods. So, although he still owned his tools and did his work in his own home with the help of the members of his family and combined his industrial work with some agricultural activity, he could no longer sell his finished goods direct to the consumer, and became dependent on the capitalist employer for selling them. The latter also purchased the raw materials in large quantities and distributed them among the workers. The division of labour was carried a little further than in the handicraft system. In the latter, one class produced the raw material and another the commodity. In the domestic system, the production of the commodity was divided into two classes, the capitalists buying the raw materials and selling the finished goods and the workers providing labour, tools and the place of work. Thus, the trading function was separated from the industrial function and was handed over to a specialist, a kind of capitalist middleman. The worker lost a part of his economic independence, but his subordination to the capitalist was not so complete, as it became later. He was dependent on his employer commercially, but not industrially.

He worked to order, but in his own small workshop, where he was his own master.

This system was developed during the 17th century and reached its height in the 18th especially in England. It often led to the exploitation of the workmen by the capitalists, because the former were unorganised and altogether dependent on the latter. Custom or law gave them no protection. The employers charged high prices for the materials supplied to the workers, and paid them low prices for their finished products. The workers, therefore, had to work long hours in order to secure the barest livelihood. In the latter half of the 18th century, the system was modified by the introduction of more capital into the methods of production. This was due to the desire of the capitalists to make the most of their capital and to economise in production by the invention of labour-saving devices or machines operated by mechanical power instead of human labour. The development of the great mechanical inventions and the application of steam power to them came first in the textile industries and then spread to the other industries. After 1830, the market was widened by means of the railway and the steamship. So the factory system arose³. It will be considered fully in later chapters. The domestic system, however, prevailed to an appreciable extent in countries like Japan and India, even at the end of the century.

2. *Judaism and the Jews.* The Jews originally consisted of several tribes living in Palestine. Their early story and the troubles which they had with their powerful neighbours on their sides, in Babylonia, Assyria and Egypt are narrated in the Old Testament of the Bible. It also contains the tenets of their religion, which is known as Judaism. Moses was the founder of the religion and the Jews had a brief period of glory in the days of David and Solomon. Although this glory was small, the Jews magnified it in their minds, regarded it as a Golden Age and firmly believed that it would come again at the appointed time, when a Messiah would usher it in and make them, the chosen people of the world, once more great and powerful. It was this belief which held them together and maintained their identity throughout the centuries up to modern times, although they were dispersed all over the world, had no home or nation, and were not only treated everywhere as unwelcome and undesirable strangers, but were also cruelly persecuted in many countries in the mediaeval and modern ages. They were compelled to live in special parts of cities, called ghettos, away from others, in order that they might not pollute the latter; they were sometimes compelled to wear special dress; they were humiliated, tortured and even massacred wholesale in "pogroms" and the

³ See Seligman, *op. cit.* p. 94.

word "Jew" became a term of abuse, meaning a miser and an extortionate moneylender. When Jesus first arrived on the scene, the Jews had hopes of a Messiah in him, but he soon disappointed them by preaching a revolt against the prevailing social and religious system. So, they soon turned against him and handed him over to the Roman authorities. In spite of this disappointment, they continued to cherish the belief mentioned above, maintained their racial and cultural characteristics and produced a number of leading literary men, scientists, financiers and business men. Most of them, however, were poor and chiefly crowded themselves in the cities of Eastern Europe and were subjected to continual persecutions and periodical massacres. Yet they never ceased to dream of old Jerusalem as the promised land. They called Jerusalem Zion, and Zionism meant the call of the past, pulling them to Jerusalem and Palestine.⁴

3. The Spread of Christianity. Christianity, regarded historically as one of the great religions of the world, owes its rise to Jesus who was born at Nazareth in Palestime. His birth is ascribed by the church to the miraculous act of God. At 30 years of age, Jesus Christ appeared in public at Jerusalem, and after a short period of less than 2 years, he was tried and crucified, upon the accusation of his countrymen, the Jews, by the Roman Governor, Pontius Pilate. The Christian era begins from the supposed date of the birth of Christ and its dates are referred to as A.D., i.e., Anno Domini, meaning in the year of the Lord. The Roman people were not intolerant regarding religion, and the Roman Empire tolerated all religions. But Jesus was looked upon as a political rebel by the Roman authorities and as a social rebel by the Jews, because he preached against the prevailing social conditions and particularly against the rich and the hypocrites, who had made religion a mere matter of certain observances and ceremonies. Instead of promising people wealth and glory, he asked them to give up even what they had for the Kingdom of Heaven.

The immediate followers of Jesus were frightened at his death and abandoned his teaching. But soon, Paul, an able and learned person, started preaching the Christian doctrine, although he had not met Jesus. He succeeded and Christianity spread gradually. At first the Roman Empire attached no importance to it, thinking that the Christians were only a sect of the Jews. It might have tolerated Christianity as a religion. But like all despotic governments, it was extremely jealous of any organization, which it did not itself control, and it was the organization rather than the faith of the new church, which brought it into collision with the Imperial authorities. Both were absolute and exclusive systems. They regarded the refusal of the Christians to worship the image of the Roman Emperor as political treason, and made it punishable with death. Hence, the Chris-

⁴ See Nehru, **Glimpses of World History**, p. 763.

tians were persecuted, their property was confiscated and they were thrown to the lions. Ultimately indeed the Empire and the Christian church were reconciled and became allies, but this was not brought about until the incapacity of the former to crush the latter had been proved in more than one furious conflict. When the Christian martyrs were prepared to die for their cause and to glory in such a death, it was impossible to suppress them or their cause.

Moreover, the Empire indirectly assisted the spread of Christianity. The Empire was a vast international system embracing races, states, languages and religious practices. The old religions were national, limited to the states in which they were professed. The new international state required an international religion, and Christianity emerged as such. Further, the Empire indirectly assisted the preaching of such a religion. It had brought the East and the West, the North and the South closer to each other than ever before, by an admirable system of roads, a uniform system of coinage and freedom of movement across state frontiers. Christian missionaries, therefore, could move everywhere without difficulty and could speak to a large proportion of the people, in one of the two languages of the Empire, *viz.*, Latin or Greek. Hence, the services of the Empire to the spread of Christianity were great and after a period of conflict, Christianity was destined to strengthen and reinforce the Empire. Thus, to be a Roman came to be a Christian, and vice versa. Early in the 4th century A.D., one of the Roman Emperors himself, *viz.*, Constantine, who founded Constantinople, became a Christian, and Christianity became the official religion of the Empire. Before the century was over, paganism was struggling in vain to maintain its existence in obscure corners of the Empire.

Different sects of Christian however, started quarrelling with, and persecuting, each other, over questions, such as the nature of the divinity of Jesus and the Trinity. Ultimately, a great break came between the Latin and the Greek sections. The former had its headquarters in Rome and its head was the Bishop of Rome, who later became the Pope. It came to be known as the Roman Catholic Church, and spread all over Northern and Western Europe. The latter had its headquarters in Constantinople and was known as the Orthodox Church. It flourished chiefly in Russia, after the fall of the Eastern Roman Empire.

The official Christianity, which flourished after Constantinople, is stated to have inaugurated a long period "in which reason was enchain'd, thought was enslaved and knowledge made no progress". Not only did it create bigotry, intolerance and persecution, but also made it difficult for people to progress

in science. It is true, however, that it was Christianity and the Christian priests who kept the light of learning burning, carefully preserved and copied valuable books, and maintained art and painting. The Roman Catholic Church also spread the idea of Christendom for uniting the Christian nations of Europe, because it strengthened the Church and increased the power of the Pope.⁵

The old Orthodox Church, with its headquarters at Constantinople, had refused to recognise the Pope, but when it was surrounded and threatened by the Muslim Seljuq Turks, it pocketed its pride and appealed to the Pope for help against them. Moreover, stories of the ill-treatment and harassment of Christian pilgrims to Jerusalem and Palestine by the Turks excited and angered the people of Europe. So the Pope declared a holy war in 1095 and called upon the entire Christendom, Roman and Greek, to recover the holy city of Jerusalem from the Muslims. There were several reasons for the Crusades. Many joined them out of noble religious motives. Many were influenced by the Pope's promise that those who joined them would have their sins forgiven. Further, under the cloak of a holy war, the Popes were eager to dominate Constantinople and the Orthodox Church. Finally, the traders, especially of the growing ports of Venice and Genoa, wanted the Crusades, because the Turks had closed many of their trade routes to the East.

The struggle went on between Christendom and Islam, between the Cross and the Crescent for more than a century and a half, with long intervals of rest. But the Crusaders could not achieve their objective. They captured Jerusalem and retained it for a little while, but the Turks recaptured it and retained it for nearly 7 centuries, until during the First World War it was taken by the British. But the Crusades brought death and misery to millions of Christians and Muslims. They, however, produced other results. They began as an international movement for "Christendom", but ended by arousing a spirit of nationalism; they began as a religious movement and ended largely as politico-economic expeditions. They were the military and religious aspect of a general urge towards the East on the part of the reviving energies of Europe, which brought back from the East the finer arts and crafts, luxury, science and intellectual curiosity. Numerous Christians took up Eastern customs, luxuries, dress, food, medicine, etc. Hence merchants trading with the East became more important, and towns increased in size and prosperity. The Italian cities profited most. Larger ships were built to carry pilgrims or Crusaders and their supplies. Improvements in navigation followed. These ships made it possible to carry larger cargoes between the West and the East more cheaply. Travel and trade brought about increased

⁵ See Nehru, *op. cit.* p. 110-1.

knowledge of geography and interest in the lands, which were passed through or from which the goods came. Contacts between different peoples led to an exchange of tales and information, which enriched the literature of Western Europe. Contacts between followers of different religions led to discussions regarding their relative merits. Hence, on the one hand, Eastern heresies began to creep into Europe; and on the other, the Roman Church began to send its missionaries to convert the people of Asia. In Europe, the Crusades increased the power of the Papacy and the wealth of the church. Indulgences which were first given for service in Crusades, were later sold on a large scale.

In the 13th century, Christianity was threatened in Eastern Europe by the invasions of the Mongols, the most famous of whose leaders was Chengiz Khan, but fortunately the danger passed away. The Eastern Roman Empire, however, with Constantinople as its capital, came to an end in 1453, with its conquest by the Turks. In the 16th century, Christianity was convulsed by the Protestant revolt. Long before this revolt, many peoples of Europe were getting disgusted with the corruption and authoritarianism of the Roman Church. The Church had tried to crush this new heresy by establishing the inquisition, which burnt men as heretics and women as witches all over Europe. In spite of this suppression, the new spirit of revolt gathered strength and spread in several countries. To it was added the feeling of the peasants against the church as a big landlord. The princes encouraged it, as they hoped to obtain the lands of the church for themselves. Martin Luther, a priest in Germany, led the revolt which ultimately divided the Roman Church into two, Roman Catholic and Protestant and Western Europe into two camps, religious and political. The old Orthodox Greek Church of Eastern Europe did not concern itself with the schism.

The seceders were called Protestants because they protested against the dogmas of the church. Later the Protestants themselves split up into several sects. This movement was called the Reformation, because it meant the rejection of the traditional authority of the church and the substitution of the "Bible alone" as the guide to faith and conduct. A second phase of the movement was that many princes used it for getting rid of the domination of the Pope over them. A third phase was that loyal churchmen tried to reform the church of its abuses from within. A new church order called the Society of Jesus was started. Its members, called Jesuits, gave their all to the service of the Roman Catholic Church and the Pope, and not only carried this faith to distant countries, but also raised its standard in Europe itself.⁶ France, Spain and Italy remained on the side of Rome, while the other countries of Western Europe went over to one or other of the new sects. With the

6 See Nehru, op. cit. p. 283.

expansion of the political power of the European countries in the other continents, the different sects of Christianity have been spread there, partly by migration and partly by the conversion of the peoples to them by Christian missionaries.

4. *The Spread of Islam.* Islam is the youngest of the great world religions. It is a proselytizing religion and believes in converting as many people of the world as possible to its tenets. The word means submission, i.e., submission of believers to Allah, one God, and his Prophet Mohammed. Mohammed was born in Mecca in Arabia in 570 A.D. and founded the religion in 622 A. D., on his flight to Medina, being driven out of Mecca. The Muslim calendar, lunar one, begins from this date. He incorporated his religious tenets, which were greatly influenced by those of Judaism and Christianity, in the holy Koran. Islam, however, is more than a religion. It embodies a political and juristic theory, which has been substantially realised in one of the greatest world empires, viz., the Ottoman Empire and in numerous independent states up to the present time. It also signifies a cultural whole, embodying religion and state, because the principles of the Islamic States as well as civilisation have their foundation entirely in religion. The ideal of Islam is the sway of religion over all aspects of life. Islam has no clergy, in the sense of clerical caste, and no church organization. In course of time, several sects, based on religious-political motives arose in Islam, the chief being Sunnis and Shias.

The political character of Islam prevailing to the present day has been due largely to the fact that Mohammed was not only a prophet, but also the undisputed secular leader of his congregation. Moreover, the expansion of the Islamic state was due largely to the great migration of people from Arabia to the surrounding civilised countries. Furthermore, Islam extended beyond its political boundaries, mainly through trade channels, on account of its cultural superiority and hold over primitive people. But within and without the Islamic state, the spread of Islam as a rule took place peacefully, and conversions by force and persecutions were infrequent. The reason for this, as well as for the strong hold of this religion over all converts, is that the absence of a clergy and any ecclesiastical organization makes the individual believer feel responsible for giving the religion an important place in his life and doing his best to propagate it. Not only the religious teachers but all Muslims took an active part in spreading their religion, and especially the traders, who had excellent opportunities and who were free from the distrust that was usually shown by all primitive peoples towards foreigners and missionaries. The spread of Islam was also assisted by the simplicity of its principal dogma of the unity of Allah, the creator of the world, and his relation to the prophet, Mohammed, and the rationalist nature of the entire doctrine.

In Asia, Syria, Iraq, Persia and Egypt were Islamised at an early date. The penetration of the religion into Asia Minor under the rule of the Seljuks and Ottomans came later. The penetration into India began from the 11th century. The Crusades were a mere episode in the growth of Islam. Shortly thereafter, the entire eastern Islamic world was deluged by the Mongol invasions. But the Mongols themselves became converted to Islam with unexpected rapidity. The Mongol movement brought about larger gains in China, which Islam had already reached through Turkistan, Islamized from Transoxiana, and by the ocean route. The Malay islands were Islamized from India and later directly from Arabia. Thence Islam spread to the Philippine Islands. The northern coast of Africa was conquered at an early date, and through trade, Islam penetrated into Northern and Central Africa and then the Zanzibar coast as far as Madagascar. Islam also secured a foothold in Western, Southern and Eastern Europe, but was driven out of Spain, Italy and the Mediterranean islands in the 15th century. In the east, the Ottomans spread Islam as far as Hungary and Greece, but it gained a permanent footing only in the Balkan Peninsula. In Russia, it was spread mainly through the Mongol movement.

From the beginning of the 18th century, the great Islamic Empire of the Ottomans began to reel from the onslaughts of the Western States and in the 19th century its political and military defeats in Europe were intensified. But until the beginning of the 20th century, these defeats neither weakened Turkey's position in the Islamic world nor reoriented the religious-political forces within Islam. On the contrary, they brought into existence a defensive movement known as Pan-Islamism for strengthening and expanding the traditional Islamic religious and political unity in the face of European opposition. But the contacts with the West led nationalist movements, which spread among the people of the Near East. These movements were greatly stimulated by the First World War, and the Ottoman Empire came to an end. After the War, the new Turkish Government, limited to Turkish territory, carried out a complete break with Islam. The Sultanate and Caliphate were abolished, Islam was abolished as state religion, and religion was eliminated from public life and subordinated to the interests of the State. In the Arab States, however, the nationalist movement has made a union with Islam, conceived as a religious and spiritual force, but has rejected fanaticism. Until the Second World War, Arab nationalism was local in its nature and political Pan-Arab ambitions were kept in the background. But as a result of this War, these ambitions have come to the forefront and the idea of a Pan-Arab Federation is being developed. The idea of Pan-Islamic movement has also come into existence. These ideas

are the result of a strong common feeling against European domination.

According to estimates made in 1930, Islam had 246 million followers, 64 Indians, 51 Malaya, 38 Arabized races, 34 Turks, 26 Iranians, 23 Negroes, 7 Chinese and 3 members of Balkan nationalities. Only 50 million were formally independent of Western powers, 13 Egypt, 13 Turkey, 9 Persia and the rest Afghanistan, Arabia and China. 90 million were under the British, 39 under the Dutch and 32 under the French. There were 15 in Russia. The vast majority of the Moslems live in Asia and Africa. In Europe, they are confined to Russia and the Balkan peninsula. At present there is no expansion of Islam in new fields. The increase in the number of Moslems is taking place chiefly in the countries which are under European rule. The majority of the new converts come from the "colonial proletariat" who by adopting the Islamic faith, secure civil recognition and the consciousness of human dignity.⁷

5. *Hinduism and the Caste System.* The religious principles and practices of Hinduism, which is the religion of the majority of the people of India, are responsible for certain peculiar features on the Indian social organization. These features have hitherto hampered the economic development of the country and are likely to do so in the future also, unless they are modified radically. The most important and universal feature is the absolutely rigid social stratification, which has resulted from the Hindu caste system, and which has greatly influenced even those Indians who belong to other religions.

A caste is an endogamous group having the same origin, name, traditional ceremonies, occupation, tutelary deity and social status. Its members are so linked together by these bonds that they are regarded as forming a single homogeneous community. Nearly 2,000 castes and sub-castes exist in India. Each of them has its place in the scale of social precedence, its own rights and duties, and its own rules and ceremonials. A person must marry outside his family, which is the exogamous social unit, but within the caste or sub-caste, to which his family belongs. He must not dine with members of another caste, especially if it is inferior in status to his own caste. The accident of birth in a particular caste, thus, determines entirely a person's social and domestic behaviour and doings according to the uses of that caste. The fundamental object of these restrictions has been to maintain the purity of descent, religious beliefs and ceremonial practices.⁸

⁷ This section is largely based on the account given by the Encyclopaedia of the Social Sciences, Vol. VIII, pp. 333-43.

⁸ See Ghurye, **Caste and Race in India**, p. 148 and Risley, **People of India**, p. 267.

The origin of the caste system is Brahmanical, and it spread with the extension of Brahmanism. Originally, the castes were meant to be functional and were four, the Brahmins or priests, the Kshatriyas or warriors, the Vaishayas or traders and the Sudras or the tillers and menials. The first three were made up of the conquering Aryan race, and the last of the conquered aborigines. At first, the first three castes were elastic, but there were rigid rules about the inferiority of the fourth caste. The principles of exclusion and isolation, once admitted into society, gradually permeated the entire social structure. For centuries, there was a political struggle for supremacy between the Brahmins and Kshatriyas, and a religious struggle between orthodox Hinduism and Buddhism and Jainism, which were opposed to the rigidity of the caste system. The Brahmins won in the former and Hinduism in the latter, and the caste system became thoroughly rigid. With the multiplication of professions and occupations, the number of castes went on increasing. A similar tendency towards the creation of rigid and hereditary class distinctions was noticeable in the Western countries during the Middle Ages, but it died away, because the priests could not marry and because the temporal authority ultimately got the better of the religious authority.

The caste system is based on two principles, the doctrine of Karma and the religious unity of the family. According to the former, if a man has done good deeds in his previous life, he is born in one of the higher estates in this life, but if he has been guilty of evil deeds, he is born in one of the lower castes. Social inequalities, therefore, under the caste system, are the result, not of the accident of birth, but of the deeds of an individual in his previous life, and are justifiable, and it is every one's duty to resign oneself to the low social position and disabilities, to which one may be relegated by birth in a low caste. The other principle leads to a strong community or group feeling as opposed to individualism, which is inculcated by Protestantism, to the joint family system and the Hindu laws of equal inheritance.⁹

The caste system, far from being weakened by the Muslim invasions that commenced in the 12th century, influenced the followers of the Muslim and other religions so much that they also intended to form rigid and exclusive classes, so that the entire social organization in India became impervious to outside influences. The reason was that Hindu society lacked that change of environment, which is necessary for continued social progress and which is provided by contact with other societies. The presence of the Muslim invaders and rulers, far from unifying the population, led the Hindus to tighten up their social or-

⁹ See Anstey, **The Economic Development of India**, p. 50.

ganization, to prevent intermarriages, and to adopt purdah system of their rulers, in self-defence.

Moreover, a general social deterioration set in on account of the sense of degradation caused by defeat and this strengthened the tendency to cling to convention and custom and prevented the spread of a uniform general culture. The Hindu society retired into its own shell more than ever before, and did its best to ward off contact with its hated neighbours and rulers, instead of benefiting from such contact. The same result was produced by the discouragement to economic enterprise by the Hindus, on account of the danger of the forfeiture of accumulated wealth and the reservation of the best opportunities for the Muslims. Hence, the different peoples of India settled down in their respective independent grooves, disliking and avoiding contact with each other, as much as possible. Thus, social stratification, combined with political insecurity, became a great hindrance to economic progress. The failure of India to take advantage of the great mechanical inventions made in the West from the end of the 18th century, was largely due to the operation of these factors.

There is no doubt that originally the caste system possessed certain advantages. Firstly, it promoted economic strength and efficiency by developing division of labour among the occupations. Secondly, its hereditary principle produced the same result. The son learnt the secrets of the caste occupation and became proficient in it, in the favourable atmosphere of the home, and under the loving guidance of his father. This was very important, as the acquisition of manual skill was vital and as there were no technical schools to impart it. The success of the handicrafts depends upon transmitted skill, which was greatly promoted by the hereditary principle. The caste system, thus preserved the mechanical skill and dexterity of the artisans. Moreover, the son had an assured position in life, as he inherited the goodwill and reputation of his father.

Finally, the castes served as mutual benefit societies for members, promoting good feeling among them, regulating their wages and profits, helping them in distress. In these respects, the functional castes could be compared with the mediaeval guilds in Europe¹⁰. In other respects, however, they differed from each other. Thus while the guilds were voluntary associations the castes are not so. Again, until the guilds became exclusive and monopolistic, outsiders who had acquired the requisite qualifications, were admitted to them, although, of course, the sons of members found admission easier. But no outsiders can be admitted into any caste. Finally, while intermarriages

¹⁰ Mukerjee, **Economic Problems of Modern India**, Vol. I, p. 67.

between the families of the members of the different guilds were permitted, such intermarriages are impossible among different castes.

In modern times, however the caste system has been productive of evils only. The chief evils are as follows:—(a) It has caused social and political disunity and weakness, by splitting up society into a large number of isolated, self-dependent and conflicting units. It has, therefore, seriously hampered the growth of a strong nationality, and consequently the achievement of political freedom. It has been a powerful engine of oppression and intolerance and by inculcating ready submission to whatever social position is assigned by the accident of birth has crushed individual manhood and accustomed the people for centuries to submit meekly to all forms of domination¹¹. (b) It has caused great economic loss to the country by creating enormous wastage of talent and ability. The individual born in a caste must carry on the particular occupation of that caste, and can never find his place in society for which he is fitted by his ability. It has a deadening effect on individual and social life. It removes all scope for the development of the individual's capacities and faculties, by denying him all facilities for the purpose. The members of the higher castes despise manual and technical labour, and those of the lower and out-castes are not allowed to take up the more paying occupations. The result is lack of enterprise. "The want of initiative, spontaneity and enterprise of the spirit that dares and dies, is only the natural result of centuries of caste repression and domination."

(c) It checks the growth of large-scale production in a number of ways. (i) It hinders mobility of labour by preventing a change of occupations or places. Immobility of capital is the natural result, because the artisan uses his own capital. Hence, there is overcrowding in certain occupations and scarcity of labour in others, the members of which are artificially protected from external competition by caste restrictions. It is difficult to bring together labour and capital belonging to different castes and to introduce sub-division and specialisation among them, that are necessary for large-scale production. (ii) Caste rules regulate the actual methods of production and prevent experimenting and the exercise of initiative. (iii) Consumption becomes localised and sectarian and involves great waste. Many of the castes have rigid rules regarding what their members may or may not eat and wear, what utensils may or may not be used, and what ways of preparing the food may or may not be adopted. Hence, many of the commodities have to be produced on a small scale.

11 See Wadia and Joshi, **The Wealth of India**, p. 129.

(d) It causes economic loss by inhibiting certain methods of improving production. For instance, many castes object to the use of bone, fish or night soil as manure for agricultural land. (e) The principle of endogamy, on which the caste system is based and which was meant to preserve the purity of the superior race, has been followed too strictly and resulted in the case of some castes, in deterioration owing to inbreeding and in the excess of males or females leading to the evils of the dowry system of infanticide. (f) By denying complete equality of opportunity, the caste system has done great harm to the upper as well as lower castes. It creates in the former a false feeling of superiority and in the latter the degrading feeling of utter helplessness¹². The depressed or untouchable castes, whose members number more than 75 million, are kept in abject submission and helplessness, and subjected to unbelievable humiliation and social and economic disabilities. Such conditions involve the economic waste and the moral degradation not only of the depressed castes themselves, but also of the whole society. A society that deliberately depresses millions of its members, deprives itself of the power to develop economically.

It is, therefore, most fortunate that under the influence of Western civilisation and the stress of modern economic circumstances created by the growth of commerce and industry, the barriers of caste are breaking down. High and low castes are bound to be indiscriminately mixed up in tram cars, railway carriages and the crowded streets of big towns. Many of the old industries have become unprofitable, while there is a great demand for labour in factories, workshops and mines. In all directions, people are giving up their traditional occupations in favour of new one, and a man's caste is no longer an index to his occupation. Many Brahmins even are working as traders, shopkeepers, tailors, etc. Western education and culture, the influence of the ruling race, the enforcement of the same law for all and the preferential treatment of the lower castes in filling posts in Government departments are not only breaking down the caste system, but are also making the lower castes conscious of their rights and determined to enforce them. Finally, the political tension among the Hindus and Muslims and the movement for political freedom has made the leaders of the Hindus as well as of the movement realise that the caste system is an important cause of their political weakness and so they have started a movement for removing the inequities of the caste system.

In spite of the above forces, the caste system is still quite strong. The masses living in the villages, especially ignorant womenfolk, have not yet been affected by these forces. More-

¹² See Jathar and Beri, *op. cit.* p. 103.
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over, while the castes, that have been given new rights by means of laws and constitutional reforms, are using their new power for promoting narrow and sectional, instead of national, interests, and for displaying deep hatred of the castes higher than themselves; they are not willing to show any consideration to the castes lower than themselves. It seems, therefore, that only a national social revolution can get rid of the caste system quickly. In the alternative, the country must depend upon the much slower process of the spread of education among the masses of the villages and especially among the women, wise guidance of leaders who can inspire their confidence, and well-devised laws for reforming their habits and customs¹³.

6. *Hinduism and the Joint Family System.* The joint and undivided family, as regards property, food and worship, is the second main feature of Hinduism. This feature is the basis of Hindu law regarding marriage, adoption, maintenance, inheritance and succession. The family consists of the husband, wife, sons, natural or adopted, with their wives and children, all forming a single household. Often indigent relatives, with their families, the hereditary family priest and servants are included in it. The origin of this system has been considered before. While kinship and religion based on ancestor worship were its origin, its continuance was largely due to the difficulties of communications, which prevented its several members from going away to build up separate careers for themselves and compelled to live together under the ancestral roof and to carry on the hereditary occupation of the family. The Indian joint family bears a close resemblance to the early Greek and Roman families. The eldest male member is the head and possesses the power of Roman pater familias. He possesses supreme authority in managing the estate and all the other affairs of the family, and nothing important can be done by any other member without his consent or knowledge. He is a trustee, who manages the property and other affairs of the family, for promoting the material and spiritual welfare of all its members.

The system is based on national, economic and moral principles. It saves time, labour and money, and conserves economic resources. Every member of the family earns according to his capacity, for the benefit of the family, and puts his earnings into the common family stock. The head of the family draws upon it and provides for every member, according to his need. The member, who possesses superior physical, intellectual or moral powers, uses them for the welfare of the family, and the deficiencies of another are made up by the joint earnings of all. The system is thus based on the altruistic ideal of a communistic society. The joint family guarantees the minimum of subsis-

13 See Jathar and Beri, *op. cit.* p. 106 and Ghurye, *op. cit.*, p. 182.

tence to every member, supports the old, the infirm and the defectives, provides the widows and children, and helps all to develop their individual faculties. It secures the advantages of division of labour and makes all the members useful, according to the ability of each. There is, therefore, no need for the poor law and old age pensions. The family teaches its members to labour with selflessness, sympathy and affection, to develop habits of co-operation, and to respect authority and order. It makes the most economical use of its resources, by obviating a duplication of the household establishment and equipment. It thus expresses definite social ideals¹⁴.

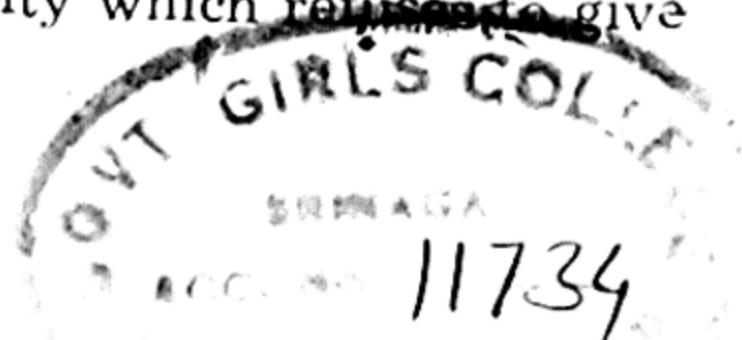
These ideals are far from being realised, even approached, by the joint family in modern times and its inherent defects have come uppermost. The strict regulation, by the head of the family, of all the doings of the members, made necessary by the subordination of each member to corporate welfare of the family, checks the growth of individuality, initiative and enterprise. The sons, brought up in a state of dependence of the father, lack initiative and enterprise, when the father's mantle falls upon them. The equal rights of all to the joint property and the lack of relation between labour and reward also check initiative and enterprise and encourage the breeding of drones in the family, devoid of all self-respect and sense of responsibility. This checks the growth of capital and large-scale production.

Under the influence of various modern forces, the joint family is gradually breaking up in India, and is being replaced by the simple family of the Western countries. Firstly, the development of communications, commerce and industry provides new scope for the exercise of individual initiative and enterprise, and the enterprising members of the joint family leave it and go elsewhere to better their fortunes independently. Secondly, the decline or disappearance of many of the old industries makes it impossible for the members of a joint family to remain together and pursue the old family occupation. Thirdly, the individualistic tendencies associated with the modern European civilisation and the individualistic leanings of the British civil law and procedure in India are asserting themselves on the joint family. Finally the loss of the corporate spirit and growth of economic motive, resulting from the growth of individualism, leads to continual bickerings, among the members of the joint family, and they decide mutually to end the unhappiness by partitioning the family¹⁵.

On account of the evils mentioned before, the break-up of the joint family, now proceeding, is welcome. But it should not lead to the growth of a selfish individuality which ~~refuses to~~ give

¹⁴ See Wadia and Joshi, *op. cit.*, p. 132.

¹⁵ See Jathar and Beri, *op. cit.*, p. 109.



any assistance to indigent but deserving relations. The object of social policy must be to combine the development of individuality with voluntary mutual assistance among relations.

7. Hinduism and the Laws of Property, Succession and Inheritance. In early times, real property was held by a fisher-succession. In the Dayabhaga system, the share of a member of a joint family is inherited by his heir on his death, but the need for determining the succession is felt only when a partition is insisted upon. Apart from joint property, separate property can be built up, but complicated questions of law arise in determining when the property is separate. Inheritance is always necessary for separate property, and legal provision must be made for it.

The spirit of Hindu law, involving equal rights to property, equal inheritance and succession and absence of primogeniture, is democratic, based on the principle that the use of property should be common. It checks inequalities in the distribution of wealth, and is meant to secure an equal start in life to all members of society. Everyone is encouraged to make the best use of his faculties, because none has too large a share in the joint property. Finally the law builds up a stable rural organization, made up of steady peasant proprietors. But, on account of the decay of Indian industries, the pressure of population on the soil has gone on increasing during the last three-quarters of a century, and this combined with operation of the law, has resulted in excessive sub-division and fragmentation of agricultural holdings and made cultivation uneconomic. But a mere change in the law will not solve this problem, which has been created by momentous and political factors¹⁶.

8. The Influence of Hinduism on Economic Activity. Many writers have stated that the Hindu religion discourages economic activity by laying great stress on the emptiness of the material things and pleasures of this life and on the importance of attaining salvation by concentrating on spiritual development. They further state that it preaches the ascetic ideal of life and thereby inculcates a spirit not merely of pessimism, but even of fatalism. That this view is grossly exaggerated is shown by the fact that India produced great conquerors, empire-builders and colonizers, that she produced great mathematicians and astronomers, that she achieved world-wide fame for the products of her handicrafts and that until the 18th century, she was not behind any other country in the arts of material civilisation. Her stagnation in these arts during the last two and a half centuries has been due principally to the political anarchy, which prevailed for a long time and which not only destroyed the sti-

16 See Jathar and Beri, *op. cit.*, p. 112 and Wadia and Joshi, *op. cit.* p. 138.

mulus to the production and accumulation of wealth, but also replaced the hope and ambition of the masses of the people, by a spirit of fatalism. This spirit was accentuated by periodic famines and by the ravages of diseases such as plague, malaria, and hookworm. The latter two diseases even when they do not cause death, bring about a serious loss of vitality and generate a permanent feeling of pessimism and apathy.

It is, however, true that the Hindu religion has pervaded most spheres of life in India and has tended to produce rigid traditionalism and conservatism and unreasoning opposition to many innovations, even though they may be very beneficial. In many cases, it has run counter to, and superseded, the economic motive. For example, on account of the sacredness of animal life, especially that of the cow, inferior and diseased animals are allowed to live, to eat up the valuable and limited fodder, thereby increasing its scarcity for the superior and healthy animals, and to reproduce inferior young. It is estimated that the annual loss to the country from keeping decrepit and useless cattle is Rs. 176 crores, i.e., four times the land revenue. The sacredness of animal life also does not allow the destruction of harmful pests, such as rats, monkeys, squirrels, jackals, porcupines and flying foxes, which cause enormous destruction of fruit, vegetables and crops.

Again, religious sentiment induces people to maintain large numbers of able-bodied beggars and mendicants in complete idleness. Further, nominal ceremonial purifications are sometimes allowed to take the place of elementary sanitary precautions. Moreover the religious sanction for many social customs compels extravagant expenditure on ceremonies connected with birth, marriage and death and this often leads to permanent indebtedness. Pilgrimages produce the same result and in addition spread epidemics. The ceremonies cannot be performed without the aid of Brahmins, who exact money from the masses, whenever possible. Furthermore, the Hindu religion makes marriage compulsory for all, because sons must perform certain religious ceremonies annually to enable the parents to attain salvation. But as the parties entering into a marriage must belong to the same caste, and often to the same sub-caste, it becomes frequently very difficult to secure brides or bridegrooms of suitable ages, and early or infant marriages are the result. Moreover the parents of girls, who are not married before puberty, are regarded as destined to go to the purgatory and are, therefore, subjected to social obloquy. Hence, the parents are in a hurry to get their girls married somehow at early ages, and girls of 10 or 12 may be married to men of 60. Such girls become widows in a few years and have to remain so, because widow marriages are strictly prohibited in the upper castes.

The lot of the Hindu widows is very hard, as they are the drudges of the families of their deceased husbands. The prohibition of widow marriage, combined with religious necessity of begetting a son, compels widowers of advanced ages and without sons to marry girls of tender ages. The same necessity compels men to marry a second or third time, if the first or second wife, although living, has not given birth to a son. The consummation of marriage at puberty, the great shortage of women teachers, the copying of the purdah system, strictly or partially by the upper Hindu castes from their Muslim conquerors and lack of desire for the education of women, prevent the education of women and keep them ignorant, superstitious and unwilling to accept any innovations, however beneficial they may be¹⁷.

Universal and early marriages combined with the great desire to beget a son make the birth rate high. The death rate is also high, on account of high maternal and infantile mortality that results from the facts that early and frequent motherhood impairs the vitality of women and that insanitary surroundings and customs prevail at child birth.

The above customs and institutions have thus tended to create over-population, to check economic enterprise and to harm mental and physical development, especially of women. Under the influence of Western ideas and sciences, with the establishment of an orderly government and with the development of communications, however, enlightenment is gradually spreading among the people, and the Hindu religion and its customs are being reinterpreted and reoriented to bring them into conformity with modern ideas and improved material conditions, and to instil new hopes and ambitions in the minds of the people. Thus, the *Bhagwadgita*, the chief gospel of the Hindus, is being reinterpreted to show that it advocates a life of action in preference to that of renunciation, but that it preaches action without attachment, so as to harmonize the material and spiritual needs of life¹⁸. The customs regarding marriages, ceremonies, pilgrimages, etc., are being modified, and the modifications are being reinforced by appropriate legislation, so as to minimise and ultimately to remove the harmful effects considered above. Hence, there are good reasons for believing that, with the steady pursuit of national, political, social and economic policies the Hindu religion will cease in the near future to be an obstacle in the economic progress of people who belong to it.

17 See Anstey, *op. cit.*, p. 57.

18 See Jathar and Beri, *op. cit.*, p. 117 and Radhakrishnan, **The Hindu View of Life**, p. 127.

CHAPTER IV

THE GENERAL FEATURES OF THE MODERN ECONOMIC ORDER

1. *The Four Revolutions.* The modern economic order in the civilised world was ushered in by the revolution in industry, agriculture commerce and transport in the 18th and 19th centuries. The appropriateness of the word is generally used to denote a violent and spectacular event, like the French Revolution of 1789 or the Russian Revolution of 1917. Such sudden and catastrophic changes are not possible in the economic field, in which changes are slow and often imperceptible. In fact, the economic changes mentioned above spread themselves over a period of a century and half. Yet, the use of the term revolution, to describe these economic changes, is not inappropriate, because it helps people to appreciate the great magnitude of the changes, which were so far-reaching and so tragic in their strange combination of material progress and social suffering, that they deserve to be called revolutionary. Calling them such enables people to realise that their rapidity was far greater in the 18th and 19th centuries than in any previous age, and that the price paid for them in the form of social suffering was also far greater¹. The effects of these revolutions were far greater than those of any political revolution.

2. *The General Features of the New Economic System.* The general characteristics of the modern economic order are as follows : (1) Freedom of contract and competition, (2) Entire disappearance of better and complete prevalence of money economy. (3) Development of credit and banking and consequent disappearance of usury. (4) Close interdependence between the different countries of the civilised world. For instance, Great Britain could not have manufactured goods for the consumption of other countries, unless the latter supplied her with food and raw materials, and her prosperity is threatened by a war, a disturbance, a depression or a famine in another part of the world. Her industrial efficiency depends upon a delicate system of exchanges, which is upset by any of the above events. Marshall has stated that this interdependence illustrates the fundamental unity between the laws of nature in the physical and the moral world. In this unity, the development of the organism, social or physical results in a greater sub-division of functions between its separate parts, on the one hand, and a closer connection be-

1 See Birnie, **An Economic History of Europe**, p. 1.

tween them, on the other. The civilised world is gradually evolving into one organism, the several parts of which have specialised functions. But the more integrated the organism, the more it is affected by an accident to one of its parts².

(5) A more or less even distribution of population among the different occupations, so that agriculture and rural population cease to occupy a predominant position in the national economy, and there is a continual drift of population from the country to the city. (6) A complex division of labour, facilitated by a wide and expanding market and the growing use of complex machinery. (7) Organisation of production on a large scale, with concentration of larger capital, the use of the latest, most efficient and specialised machinery and concentration of labour, guided by expert business managers, in big factories located in large industrial cities, and without any personal relationship between the workers and the capitalists. The predominance of the industrial capitalist employer is so pronounced as to give to this form of business enterprise a special name, *viz.*, the factory system.

3. *English Inventions and French Ideas.* To bring about these results, two great economic forces were at work, English inventions which, for the first time, gave man control over nature and the French conception of economic liberty, which followed from the French Revolution. By the end of the 18th century, the English people had secured a high degree of personal freedom, entirely unknown in other countries, which had not got over their serfdom and feudalism. England's North American colonies, which developed into the U.S.A. from 1783, had inherited the mother country's tradition of individual freedom and initiative. The French Revolution was an effort, from below to secure, suddenly and by violent means, the personal freedom, i.e., freedom to move, buy and sell, and to choose one's occupation, that had been secured by Great Britain by a process of evolution. The French armies, marching into various countries of Europe, liberated serfs, abolished gilds, established new property laws, and compelled the rulers to organise their mediaeval countries, from above, on the lines of personal freedom.

The Governments of the feudal and agricultural countries of Central and Eastern Europe, therefore, tried to organize their economies under the influence of French ideas and English inventions. The two influences were interrelated. Without the French ideas of personal freedom, that brought about the abolition of serfdom in Europe during the first six decades of the 19th century, and enabled people to move from their ancestral villages to new places, it would not have been possible to get

² See Morison, *op. cit.*, p. 157.

workers to build and run factories, railways and steamships. Without English mechanical inventions and capital, it would have been impossible to provide new employment to people, who were now able to migrate, and to secure their migration to America, Australia and Africa by means of railways and steamships. The Old World even influenced the New and converted the U.S.A., a big and vacant continent, into a prosperous and populous one, producing grain, meat, raw materials and even manufactured goods for the Old World and thereby reacting upon the latter and modifying its economic development after 1870. These powerful world forces, thus sprang from Great Britain and France, transformed many countries of Europe, particularly Germany and Russia, then spread to the U.S.A. and South America, brought about the colonization of Australia, reconstructed Japan, India and China, and influenced even Africa, bringing about what might be truly called a World Revolution.

Within the great system of world exchange of peoples and goods, were the nations, and each nation had its own ideas regarding the development of agriculture, industries, transport, colonies, markets, protection versus free trade, regulation of capital and labour, etc. At first, State action and control in these matters were condemned by many as harmful and *laissez faire* was extolled, but later there was a powerful reaction in favour of State action and control. These were always greater in feudal countries like France, Germany and Russia than in individualist countries like Great Britain and the U. S. A., because the former had to solve the problems presented by backward agricultural populations, emerging from serfdom, such as the introduction of new methods of production and intensive agriculture, and protection from American imports. But Great Britain adopted free trade in 1846, and depending upon imported food, did not pay much attention to producing it at home until the First World War.

Among the Great Powers, Great Britain and Germany became primarily industrial, Russia, Japan and the U. S. A. remained largely agricultural, and France occupied a middle position. Industrialism, however, was inaugurated in Russia, Japan and the U. S. A. also. To secure markets and raw materials and to increase their national economic strength, all of them built Empires.

The realisation of personal freedom meant on the one hand, freedom of movement and of choice of an occupation, migration and the growth of towns. It meant on the other, an entire reconstruction of agricultural life, and a new system of agricultural tenures and methods, based on separate and individual ownership of land and intensive cultivation.

Mechanical transport, in the shape of railways and steamships, on the one hand, created new Empires and new international rivalries, by penetrating big areas. On the other, by facilitating migration, it created new problems of colour rivalry, race exclusion and the maintenance of the standard of life. The people of the U. S. A. and Australia enjoying a higher standard of life, found it necessary to protect it by limiting the immigration of the people of Eastern Europe and stopping that of the people of Japan and China, on account of their lower standard of life. Further, the transport development led to large investment of capital in new countries, whose products could be carried away by railways and steamers. This also meant that famine lost its terror, as scarcity of food in any country could be met by imports even from distant countries. Finally, the mechanical invention enabled mankind to overcome most obstacles of nature. Canals were constructed to connect oceans and to open new trade routes, e.g., the Suez and Panama canals; mountains were pierced by tunnels through which railways passed; Railways crossed the Rocky mountains and the Andes; rivers were made navigable and connected by canals, big enough for ocean-going ships, e.g., the Manchester ship canal and the Dortmund-Ems and the Mittelland canals in Germany; modern communications conquered the Sahara desert, the Russian snows and the African tsetse fly, the deadly enemy of pack animals; overflowing rivers were dammed and their water utilised for irrigation by means of great engineering works, as in India and Egypt; modern science enabled man to overcome his enemies of the insect world, such as the malaria-carrying mosquito and the cotton boll weevil.

4. *Economic Liberalism followed by Nationalism and Imperialism.* The reaction against the autocratic kings of Europe, brought about by the growth of democracies and new nationalities, which tried to realise their new national aspirations, resulted in the loss of faith in the old mercantile system. Moreover, the old tariffs could not keep foreign goods out, when the railways greatly reduced freight charges and promoted exchanges on an unprecedented scale. England, therefore, being organized for world production and trade, took the lead in repealing her tariffs and Navigation Laws between 1822 and 1854, allowing all to trade with her colonies and allowing her colonies to trade wherever they wished, and followed up this *laissez faire* in commerce by its introduction in industry also. Other countries copied England's example more or less, and a wave of economic liberalism swept Europe.

After the defeat of France by Germany, in 1870, the spirit of nationalism became intensified in Europe, and a reaction took place against economic liberalism. The growth of railways and steamships led to an intense commercial competition in the world, and it seemed necessary to protect each nation from the

excessive competition of others. New national economic policies, therefore, came to be evolved, and high protective tariffs were devised, until the policies led to a clash of arms in 1914 in the form of the First World War.

The intensified nationalism led to the growth of a new economic Imperialism, which swept continents, whereas only islands and narrow coastal regions had been included in the old colonial system. It was less crude than the mercantile and colonial systems, but in some ways more deliberate and conscious of its objective, viz., the use of the colonies and protectorates for promoting the interests of the Imperialist power. The new policy was evolved by the industrialised nations of Europe to meet the necessity of finding outlets for their surplus manufactured goods, surplus capital and surplus population and to make sure of obtaining enough raw materials and food for the growing industries and populations. The financier, the explorer and the religious missionary were chief agents of the new Imperialism. They were responsible for the peaceful penetration of new territories at first; then permanent occupation of territories often followed a default in the payment of the claims of the financier or ill-treatment by the natives of the explorer or the missionary. Nations abandoned *laissez faire* and became Empires. England built up an Empire in three continents, France in Africa and the Far East, Russia in Siberia, Germany in Africa, the U. S. A. in Mexico, Alaska, the Pacific area and the region of the Panama Canal, and Japan in China. All of them made preferential tariff arrangements with their colonies and dependencies. They scrambled for the division of Africa, in order to produce raw materials scientifically for themselves, in its tropical regions. They scrambled for the division of Asia, or for spheres of influence at least as in China for securing markets. This development of Imperialism abroad was accompanied by the enactment of labour and social legislation at home, as the new working class, finding that the new democracy had not enabled them to realise their high expectations, veered to Socialism as their objective. The old national mercantilism of the autocratic kings was reborn in the form of a new democratic imperial mercantilism³.

5. *The Colonial System in India followed by a Policy of Economic Development.* We shall now turn to India. Here, the English merchants occupied the breach created by the decay of the Moghul rule and kept up the continuity of economic life, by taking up the products of the artisans and peasants. But they also kept up the old Moghul system of exploiting the latter. With the abolition of the East India Company's monopoly of trade in 1813, the private traders brought a special commercial

³ See Knowles, **Economic Development in the 19th Century**, Ch. I.

ability and a new enterprise to India and began to export many new articles from India. But the economic policy of those days was guided by the colonial system and was openly the policy of Plantations. Little attention was paid to the indigenous industries, and all attention was given to pushing the sale of English manufactured goods in the country. The duties and cesses, which hampered the foreign trade, were removed or reduced. This, combined with the progress of the Industrial Revolution in England, submerged the enfeebled industries of India and produced disastrous results by throwing out of gear its whole internal economy. The Indian people had neither the adaptability, nor the organizing capacity, nor the capital, of the English people, to evolve new types of industry suited to the altered times. So, the artisans, driven out of cottage industries by the inflow of foreign factory-made goods and unable to turn to any other kind of production, were compelled to fall back on the land. This explains the progressive ruralisation of the population that went on for several decades.

The great merit of the new policy of the development of railways, post offices and telegraphs that was pushed on from the sixties of the 19th century was that it converted India from a geographical expression into a consolidated economic unit. This was accompanied by the opening of the Suez Canal in 1869. The result was a continuous and rapid expansion in India's trade with England. The profit of trade, the contact with new conditions and ways of life, brought about the extension of communications and the wide range of commodities brought into the country, influenced the life of the people greatly, in spite of the fact that Government suffered from inertia produced by the *laissez faire* doctrine.

The profits of agriculture and trade brought into existence a middle class, which had hardly existed before, and whose income and standard of life went on rising. The effect of the new conditions on the lower classes was far less marked, but they also began to use articles like sugar, kerosene, woollen and cotton piecegoods, shoes, matches, soap, umbrellas, trunks, medicines, pictures, mirrors, etc., which formerly had been articles of luxury, afforded only by the well-to-do people. The growth in wants was accompanied by a growth in productive activity. Commerce led the way to manufactures and British capital and enterprise flowed into industrial undertakings in India. The example roused the ambition of the more enterprising among the Indian commercial classes, and Bombay, with its factories, became the industrial capital of India. Later other industrial centres and factories came into existence. Government also gradually abandoned its *laissez faire* policy and adopted a policy of conscious development. Although, the output of the Indian

factories, relative to the size and populaltung of the country, was very small, the rise of manufacturing enterprise was more significant, because it showed that a change had come in the economic outlook of the people, that a new desire for a higher standard of life had arisen among them and that the tendency to the progressive ruralisation of the population was arrested.

CHAPTER V

THE INDUSTRIAL REVOLUTION AMONG THE GREAT POWERS

1. *Why did the Revolution occur First in Britain.* This Revolution took place in different countries, at different times and under different conditions. It took place first in Britain. Commencing in the middle of the 18th century, during the next 70 years, it transformed her from an agricultural country into an industrial one, possessing a large and wide trade in manufactured goods. In France and the U.S.A., it began in the early decades of the 19th century but it followed a somewhat different course there, and did not industrialise them as much as Britain. It began in Germany in the seventies of the 19th century, with the creation of the German Empire after the defeat of France, but developed rapidly there, and transformed her into a highly industrialised country in the course of a single generation. It may be said to have commenced in Russia in the sixties, after the Crimean War, in Japan and India in the seventies, after the Emperor Meiji's coming to the throne and the opening of the Suez Canal respectively, but its progress was much slower in these countries and it was far from complete there, when the First World War broke out.

The order in which the chief countries of the world were industrialised as well as the rapidity of the progress of industrialisation were determined by economic and political causes. The fundamental economic cause of the Industrial Revolution was the unprecedented growth of overseas trade, during the 17th and 18th centuries, between Europe and the Asiatic and American continents, as a result of the opening up of new markets in the latter, brought about by maritime enterprise. The widening of these markets gave increasing scope to the division of labour and specialisation of employments. Moreover, they demanded simple goods like cotton textiles, the production of which could be easily standardised and carried on most suitably by means of machinery. They stimulated the mechanical inventions in Britain in the 18th century, the chief of which were connected with the spinning of yarn and the weaving of cotton cloth. These inventions, however, were only the secondary cause, and not the fundamental cause, of the Industrial Revolution. Machines for manufacturing large quantities of goods cheaply would have been useless, without market to sell them in. Markets had to be secured first, and inventions could only follow.

In most cases mechanical inventions are the result of the changing needs of mankind and not of accidents.

The occurrence of the Industrial Revolution first in Britain, however, was largely due to political causes. In the long struggle that went on during the 17th and 18th centuries between England, France, Spain, and Holland, for overseas markets and colonies, England came out victorious on account of her superior naval power. In those days, no Government allowed foreigners to trade with its colonies. France, although richer and possessing a larger population, lacked overseas markets and her home market was unduly restricted by internal customs, barriers and undesirable regulations. Moreover, the French Revolution destroyed her commercial and industrial life, and it took her forty years to recover from this shock. Germany remained divided into a number of states, each of which had its independent customs, until the establishment of the Empire in 1871. Consequently, she not only could make no serious efforts to acquire overseas markets, but also found her domestic market divided into pieces, and had even to allow her more powerful neighbours to fight out their quarrels on her soil and to disrupt her economy. Moreover, she suffered from lack of capital, bad roads, and lack of enterprise owing to the parochialism of her people¹.

Other advantages also helped Britain to industrialise herself first. Her coal and iron mines not only lay together, but were also close to the coast in Wales, Northumberland and Scotland. This minimised the difficulty of transporting finished goods. She possessed the capital required for working out the industrial experiments, because she had secured large profits by distributing in Europe tobacco, sugar, spices and other products brought from India, and the colonies. Her merchants were prepared to sink a good deal of their profits in coal mines, iron works and textile factories and to wait for returns. Her efficient banking system made capital easily available and its owners were willing to enter into partnership with inventors. Her social and political conditions also were very favourable to industrial advance. Her political security was so good that people did not hesitate to invest their capital in the fixed form necessary for large-scale production. She had complete freedom of trade within her borders and her island position protected her internal economy from ravages similar to those which continual warfare inflicted upon the Continent. While her rivals had not got rid of the worst evils of feudalism, her social organisation had become practically free from them. Her masses enjoyed greater civil and religious liberty and greater freedom from class tyranny than those of any other country. So they were free to

¹ See Birnie, *op. cit.* p. 4 and Knight, Barnes and Flugel, **Economic History of Europe**, p. 349.

move from the land to factories, as no other people were at the time. Political rights and government were no doubt in the hands of a small class of big landowners, but they did their best to promote trade and industry. Class differences were less marked and more easily overcome in Britain than on the Continent. Frequent intermarriages between the ruling class and the other people not only strengthened the former but also enabled them to know and appreciate the needs of the latter. The gilds had come under royal control and could not place any obstacles in the new machines or of men wishing to take up new occupations. The companies for foreign trade had ceased to be monopolies and could no longer restrict the amounts bought and sold.

The geographical position of Britain on the outskirts of Europe at the head of the Atlantic and commanding the approach to Northern Europe gave her exceptional scope for selling in any market.² Her shipping was more efficient than that of any other country for carrying manufactured goods to the overseas markets with facility. Her growing colonial power enabled her to obtain large supplies of raw materials for her factories far more easily than any other country. Her internal market was enlarged by the increased transport facilities provided by improved roads and canals. The coming of machinery in the cotton textiles was due to the prohibitions of the import of hand-woven cloth from India, a growing demand at home, large markets abroad, knowledge of catering for them, freedom to secure them, plentiful capital, and scarcity of labour.

2. *The Importance of Machinery, Steam, Coal and Iron: Differences in the Tempo of the Revolution.* The Industrial Revolution brought about a very important change in industrial technique by replacing tools with machines. Both enable the worker to perform certain operations more adroitly than he can do with his hands only. But, while the tool is worked by manual labour, the machine is worked by a natural force, such as wind, water or steam. Before the Industrial Revolution, the absence of a satisfactory motive power had hindered the invention of machines. Wind was undependable. Water depended altogether upon the conditions of place, and dried up or was in flood or became frozen. Steam is free from all these drawbacks and can be produced exactly where it is required and in the proportion wanted. It only requires a small amount of coal and water and can be used as a tireless force, economising labour and supplementing the small hauling and lifting power of man and his domesticated animals. It is also transferable to a far greater extent than water power. The invention of the steam engine, therefore, enabled the general adopting of machines for produc-

2 See Knowles, **Industrial and Commercial Revolutions in Great Britain**, p. 34.

tion and became the fundamental feature of the Industrial Revolution.

A stationary engine invented by Newcomen was in use in England in the 18th century. It created a vacuum in a cylinder by alternately heating and cooling the latter, so that a piston was forced into it by the pressure of the outer air. This method caused a great waste of fuel. Towards the end of the century, therefore, James Watt devised a separate condensing chamber attached to the cylinder, into which steam was admitted and condensed, without cooling the cylinder itself; then he invented a method in which the piston was moved by steam instead of atmospheric pressure; and finally, he gave the piston a rotary motion, so that it could turn a wheel and move machinery.

Steam requires coal and a great demand for it arose in many countries. In the 18th century, it was used to a limited extent in England and hardly at all in other countries. The ordinary household fuel was turf, wood or charcoal. In the 18th century, coal became necessary for power and household purposes. The Industrial Revolution depended upon coal, because it was required for driving machinery, for smelting iron, for the chemical industry and for the new transport by railways and steamships. Even the Agrarian Revolution to be considered later, became dependent on coal development, because the large wastes could not be brought under cultivation, so long as they were necessary for supplying wood, turf or peat. On account of great importance of coal, population became concentrated on and near coalfields, for extracting coal and for using it for iron smelting, in engineering works and for driving machinery in factories.

Steam created a new demand for iron. Machines made of wood could not stand the strain of the new motive power, and they had to be made of iron. But in the 18th century, the smelting of iron from the ore with charcoal had become very difficult, on account of the increasing scarcity of timber, from which charcoal was obtained. The iron industry was saved from this great difficulty by the discovery that coal in the shape of coke could be used instead of charcoal, for smelting iron. The coking process was invented by an English ironmaster, Abraham Darby. Later, the hot blast was invented by Neilson. It enabled raw coal to take the place of coke. This invention was most beneficial to countries like Scotland, whose coal was not suited to coking. Hence, the flourishing iron industry of the Clyde was built up.

To make and repair machines, engineering shops came into existence. But iron ore could not have reached coal in large quantities without using the new means of transport, viz., railways and steamships and these in turn began to make heavy demands on coal and iron, for making repairs, renewals and

running. With these developments came the chemical factories, which also required coal, partly as raw material and partly for power. Hence, the amounts of coal and iron produced or imported became the tests of a country's industrial progress, and Britain, Germany and the U. S. A., which possessed and used their coal and iron resources, came to the front in the 19th century. France, with her poorer coal and iron resources, remained behind and was industrialised to a much smaller extent. For the same reason, the industrial development of Russia, Japan and India took place later and its tempo was much slower.

The early inventors were greatly handicapped by the lack of skilled engineers. The former made accurate models of their inventions but could not find the latter capable of constructing accurately steam engines and machines on a larger scale according to the models. Up to the middle of the 18th century, the only engineers were the blacksmiths, who made and repaired the mechanism of the flour mills. The engineers, therefore, had to train themselves up by learning, as they went on. Watt's partner, Matthew Boulton of Birmingham helped to build up the nucleus of a profession of skilled engineers and Maudsley's invention of the slide-rest in 1794 diminished greatly the difficulties of accurate workmanship. This was one of the early machine tools which revolutionized the engineering industry.

During the 19th century, the metal industries also developed. The most important development was the discovery by Sir Henry Bessemer in 1856 of a cheap process of making steel, which is lighter, harder and more lasting than iron. The metal industries were revolutionized by the Bessemer process, but its defect was that only those ores which were free from phosphorus, could be put through it. The defect was removed in 1878 by the discovery by two English chemists, Thomas and Gilchrist, of a method of freeing the phosphorus from the ore by lining the converter with manganese. The Thomas-Gilchrist, method made steel much cheaper, so that henceforth it took the place of iron for most industrial and transport purposes. It also quickened the tempo of Industrial Revolution in Germany by making the phosphoric iron ores of Lorraine useful to her for manufacturing steel.

3. *Mechanical Inventions.* Another change came when mechanical devices moved by water or steam power were applied to the textile industries. The great difficulty before the invention of such devices for spinning was the insufficiency of yarn, as it took from 6 to 8 spinners to keep one weaver employed. The first practical success in the numerous attempts to invent a spinning machine, was achieved by Hargreaves of Blackburn, who invented an improved hand machine in 1767, which he called the 'Jenny' after his wife. It spun a hundred threads.

at once instead of one.³ It was followed by the invention of a machine worked by water, called the water frame, by Arkwright in 1768. This invention meant the beginning of the factory system, because the workers had to be assembled in one building for the sake of the water power, whereas the Jenny could be worked at home. In 1775 the "mule" was invented by Crompton, who by combining the Jenny and the water frame, evolved a machine that could spin very fine yarn. By 1812, it superseded Arkwright's water frame for all fine yarns. It was first worked by water power and then by steam.

These devices created a surplus of yarn, and a scarcity of weavers was experienced. The need was partly supplied by the adoption of Kay's flying shuttle, which, like the Jenny, was an improved hand machine. It was fully met, however, only with the invention of the power loom, with which are associated the names of Cartwright, Johnson and Horrocks. Later, the woollen industry also was influenced by these inventions. It took 70 years (1770-1840) for these two principal industries to be radically transformed by machinery. The coal, iron, engineering, textile and transport industries depended on each other, and the reason for their rapid development in the 19th century was that all of them reached a point in the 18th, where they could be utilised together, so that they reacted on and stimulated each other.

The Industrial Revolution had two phases according to the means of transport available. The first coincided with an improvement in roads and inland waterways. It was, therefore, confined to England and to the early development of coal and iron mines, engineering works and textile factories, being limited by the amount that could be carried in waggons or barges. It was carried through by small capitalists. The second phase commenced when, with the railways and steamships, the transformation proceeded at a far quicker pace and the inventions spread to the other countries. Mechanism then began to transform other industries and to create numerous new ones.

4. *The Rise of the Factory System: Large-scale Production, Industrial Areas.* The Industrial Revolution brought the old domestic system of manufacturing to an end. The introduction of machinery necessitated the assembling of workers in large numbers in large buildings, under the direct supervision of the employer or his foremen. As regards efficiency, the superiority of the factory system was undisputed. But the workers were very unwilling to adopt it for three reasons. Firstly, they greatly preferred the freedom of their homes to the discipline of the factory. Secondly, as long as work was carried on in the home, the earnings were family earnings. Father,

³ See Ogg, *Economic Development of Modern Europe*, p. 133.

mother and children all worked, their earnings were pooled and although the individual earnings might be different all benefited equally from the pool. But under the factory system, each worker became independent of the others. Finally, the family had a plot of land or garden, which provided a by-employment that would be lost by going to a factory. The employers also were reluctant to adopt the factory system, because it meant large capital investment and overhead expenses in the shape of rates, taxes, interest, etc., which had to be borne even if the factories and machines stood idle. Under the domestic system, they gave out orders to the workers and held the whip in hand, and the workers used to underbid each other in their anxiety to get work allotted to them. Moreover, the employers incurred very little capital expense beyond warehouses.⁴ But the superiority of the factory system asserted itself in the long run, and the employers adopted it. The domestic workers struggled in vain against the competition of cheaper machine-made goods and were compelled in the end to enter the dismal factory and to submit to its hated discipline.

The rise of the factory system is only one aspect of the general tendency towards large-scale production, which is one of the features of the modern economic order. The expansion of the industrial unit was accompanied by that of the business unit, which expanded from one-man business into a partnership, then into a limited liability company and finally into a combination.

Another effect of the Industrial Revolution was the growth of industrial areas and the concentration of population in towns. This was due to the fact that certain areas provided special benefits to certain industries in the shape of raw materials, motive power and access to markets. Coal and iron fields especially attracted industries and became full of collieries, blast furnaces and factory towns. The wealth and population of the industrial countries became crowded in the industrial districts, which became the homes of the proletariat, trade unions and socialism, and which raised serious problems of town planning, housing, slums, social welfare, etc. Britain came to have 6 chief industrial districts in the north and the midlands, viz., the Black Country (from Birmingham to Wolverhampton,) South Wales, South Lancashire, South Yorkshire, the New Castle area and the Clyde valley, to which the wealth and population moved from the south-east of Britain.

The expansion of foreign trade was a cause as well as an effect of modern industrialism. The country which concentrates on industrial production must supply less developed countries with her manufactures and obtain from them in exchange the

4 See Knowles, *op. cit.* p. 65.

food and raw materials needed by her. At the commencement of the 19th century, Britain was the only such country and, therefore, she became the workshop of the world. The exchange was the most beneficial to her, because although manufactured goods became cheaper with progress of industrialism, and although food became dearer, with the growth of the world's population and decline in the fertility of the American soil, the former never became as cheap as the latter. Before the First World War, 4|5 of Britain's exports were manufactured goods and 3|4 of her imports, agricultural produce, and 3|4 of Germany's exports were manufactured goods and half of her imports, agricultural produce⁵.

The Industrial Revolution led to a relative decline in the prosperity and political position of France. Under the old system, they had depended upon a fertile soil and a large population, in both of which France had excelled. She, therefore, had enjoyed political supremacy. But the Revolution made coal and iron more important, and France was deficit in both. On the other hand, Britain, Germany and the U. S. A. were rich in them. So they came to the front one after another.

5. *The Revolution in the U. S.A.* At the time of the time of the revolt of the American colonies against England in 1788, they were entirely agricultural and formed a loose and jealous confederation of 13 states on a fringe of the Atlantic, with many divergencies between them. It was, therefore, necessary to unite them, so as to form an economic whole and to give them a strong central government. This was done by the Federal Constitution of 1788, and was followed by a remarkable expansion of American foreign trade. During the Napoleonic Wars, up to 1808, the U.S.A., as a neutral, captured the bulk of the carrying trade of the world. But then, Napoleon's Orders in Council and Berlin and Milan Decrees shut off the neutral traders from the Continent, and American trade suffered almost complete suspension. The U.S.A. retaliated by prohibiting trade between itself and France and Britain. This led to war during 1812-13 and American trade suffered still more. Hence, the American capital was diverted from the carrying trade to manufactures at home and Industrial Revolution began in the U.S.A.

The result of the Peace in 1815 was to increase the imports of English manufactured goods and to threaten the infant American industries in the North with ruin. So, the protective tariff system, which has played a very important part in modern American history, was inaugurated from 1816. By 1850, the factory system was well developed, the cotton textile industry had made much progress and a great iron industry had begun, with the help of tariffs. Moreover, the country was developing

5 See Birnie, *op. cit.* p. 12.

rapidly and needed iron, especially for rails. Shipping was also flourishing and the shipbuilding industry turned out ships of a high class. The expansion into the undeveloped Middle West territory now commenced. These developments, however, were temporarily checked by the Civil War between the Northern and Southern States in 1864, that arose out of the tariff and slave controversies. The Southern States, as agricultural exporting territories, wishing to buy their manufacturers cheaply, were free traders and regarded the protective tariffs as a tribute from them to the manufacturing Northern States, which were strongly protectionists. The latter in turn objected to the slave labour with which the large plantations of the former were worked and insisted on the abolition of slavery. The Northern States emerged victorious from the war, largely as a result of their strong industrial position.

Fortunately for the country, however, these animosities were soon forgotten after the War and the economic reconstruction of the Southern States, transforming from the plantation system into one of small holdings and a great cotton industry, the expansion in the great central region of the Middle West, the building of the great railroad system, which eventually brought the Atlantic and Pacific regions together and the growth of an iron and steel industry engaged the attention of all. Until the nineties, there was unrestricted growth and unrestricted competition, which frequently led to trusts and combines. This was followed by a period of controlled development, with government regulation of combinations and government policy of conservation.

Until the nineties of the last century, the Americans had great belief in the virtues of free competition among the Whites at home, strengthening the power of capital and the right of property. They had little respect for the rights of man, so that Factory Acts and other social legislation and Income Taxes were not even thought of. All possible facilities and privileges were granted to those, who had capital for investment, and to companies. A protectionist policy was regarded as necessary for a great nation. Even the workers supported it on the ground that they had to be protected from the unfair competition of the pauper labour of Europe. For the same reason, the Chinese and Japanese immigration was severely restricted. With the help of tariffs, the cotton, silk, woollen and iron and steel industries were developed greatly and rapidly and the U.S.A. became one of the great manufacturing countries of the world. The security of the enormous home market, given by the tariffs, paid the American manufacturers to introduce improved methods. The scarcity and high wages of skilled labour induced them to introduce all kinds of machinery and standardisation. The ab-

sence of labour legislation, of restrictions, and of strong trade unions enabled them to develop their industries as they wished.

The development of the iron and steel industry was the most remarkable, and by 1890 its production surpassed that of the industry in Britain. This was largely due to the fact that the competing and efficient railways brought together at very low rates the great deposits of coal round Pittsburg and iron ores on the western shores of Lake Superior, although they were separated by a distance of a thousand miles. Moreover, direct manual labour was replaced by machines at all steps, so that large quantities could be moved at extremely low costs. Further, after the Civil War, Alabama in the South became a great iron-producing state, with the break-up of the old system of slavery and the development of transport. The iron, however, was used for general foundry work as it had too much sulphur to make the use of the Bessemer process practicable. The progress of the cotton industry was helped by the fact that a plentiful supply of the raw material was available at home. After the Civil War, the industry spread to the South also, where a large supply of Negro labour was available.

On account of the protection from foreign competition given by high tariffs and of internal cut-throat competition, combinations in the form of Trusts were created in the railways and iron and steel, oil, sugar, whisky and other industries. It is true that they had some very unfavourable features such as the exploitation of consumers and workers, the use of unfair business methods to destroy new rivals, corruption of politics and perversion of law by the use of their wealth. At the same time, they removed waste, lowered costs, looked further ahead and used a portion of their wealth for developing foreign markets⁶.

During the period of controlled development from the nineties, the old industries continued to develop greatly, and many new industries were established to take advantage of the immense and expanding home market and the plentiful and varied raw materials produced in the country. Anti-Trust laws were passed, so the Trusts had to be dissolved, but they reorganised themselves into new forms so as to remain legal. But the publicity given to the malpractices of the Trusts and the public agitation helped to reduce the malpractices to a substantial extent.

6. *The Revolution in Germany.* In its industrial development Germany was handicapped by the following drawbacks:—
(1) Its soil was poor and much of it was barren waste, moor, forest and mountains. (2) It had a long period of cold winter, during which vegetation withered away and agricultural work

⁶ See Knowles, **Economic Development in the 19th Century**, p. 203.

was difficult. (3) It had a poor coastline and its rivers, although wide, flowed into the Baltic, which had the disadvantages of ice and difficult navigation. (4) Its central geographical position and long frontiers made the burden of defence very heavy. (5) Until the middle of the 19th century, it was merely a geographical expression and mass of scattered states divided by religious differences and had different tariffs, coinage, weights and measures and laws⁷. (6) Even when it achieved political unity, its economic security was threatened by Socialists, religious differences, the Polish question and jealousies between the North and the South. (7) Its population was increasing rapidly, so that, in spite of increased food production at home, it was compelled to import food from outside⁸. In spite of these difficulties, the Industrial Revolution was practically complete in it and it became a well-knit, consolidated, strong, political and economic unit by the end of the 19th century.

This wonderful development was due to the following factors:—(1) It possessed coal and iron in large quantities in Silesia, the Ruhr, Westphalia and the Saar. (2) It made up for the poor coastline by means of artificial waterways. (3) It regularly applied chemical manures to its poor soil. (4) Prussia took up its leadership, established the Zollverein or Customs Union for internal free trade and improved communications. In the work of modernization, Prussia reformed education, established new Universities for imparting culture and civic duty, freed serfs, commuted labour dues for money, removed restrictions imposed by gilds on settlement and choice of trade, reformed municipal administration and carried out great legal reforms. Other German States slowly followed Prussia's example. (5) On account of the very high birth-rate, German parents could not hope to save enough to leave all their children competencies. They, therefore, spent their money on the education of their children, so as to make the latter fit for careers and the battle of life. (6) The necessity of submitting to military discipline developed among the German people a capacity for all-round discipline, which produced the best organised State in the world, and a capacity for combined economic action. Among them, the individualism of the Englishman, the American or the Frenchman was impossible. (7) The fact that the German people were citizens of petty states prevented the development of national pride among them and this made them modest, adaptable and good at business. Their traditions of autocratic rule made the best of them take to business and not to politics. (8) The poverty caused by the Thirty Years' War and the Napoleonic Wars left the initiative in all matters to the State which

7 See Clive Day, *op. cit.* p. 367.

8 See Knowles, *op. cit.* p. 154.

alone possessed money and energy. (9) The German development was carried out consciously, from above, by an autocrat in each state and was systematic and regulated to secure particular objectives, because it was late. Germany's circumstances did not allow any drift. (10) After their victories against France on the battlefield in 1870, the Germans felt that they could be equally victorious in the factory and the laboratory. So the victory in the War, the indemnity from France and the new Empire together gave German industrial development a stupendous impetus, which never received a check until its development was complete. (11) Although the German population was increasing fast, Germany had no unoccupied area. So it had to provide for its growing population either by peaceful penetration, or by emigration, or by industrial development and the cultivation of foreign markets. (12) A change took place in the German character. A young and energetic nation turned from intellectual and political ideals to the cult of force and the supreme importance of the State and directed its vigour to industrial and commercial development. (13) The omnipotent State, far from being indifferent to industrial development as the government in England was, stimulated it by all the means that lay in its hands, such as tariffs, bounties and preferential rates. The protectionist tariff created confidence among the industrialists and led them to expand production. By charging low freight rates, the railways and canals were made State instruments for promoting industry. By sheer scientific education Germany wrested chemical industries from England and was the first to build up the electrical industry. (15) The German workers were well disciplined and highly efficient, although their wages were lower than those of the English workers. The German women were the best housekeepers. (16) Germany developed a shipping second only to that of Britain. (17) It developed its railways. (18) It organized its finances on quite new lines and its banks gave the fullest financial assistance to industries. (19) The German Jews even gave great help in the development of finance, commerce and industry⁹. (20) The Kartells enabled industries to make the fullest use of the protective tariffs for capturing and expanding the home market and to capture many foreign markets. They were joint bodies of different businesses, formed for arranging price, sale, quality and output policies, so as to eliminate waste and competition in the home market and to carry out a unified policy of dumping in the foreign markets. They were encouraged by Government and banks, as they were supposed to keep prices and employment stable.

In the industrialisation of Germany, coal played the most important part. Germany had large supplies of both bitumin-

⁹ See Knowles, *op. cit.* p. 174.

ous coal and lignite. Although the heating capacity of the latter was only $\frac{1}{3}$ of that of the former, its production increased greatly from the end of the 19th century, as it was quite useful for the generation of electricity. Germany benefited from Britain's experience, as the development of its coal mining came later than that of the latter. Hence, from the beginning German mines were well equipped and efficient and operated on a large scale. Germany exported considerable quantities of coal, but imported substantial quantities of the best coking coal, mostly from Britain.

The German iron and steel industry also, starting later, benefited from experience of Britain, was well-equipped and large-scale. Its development was largely due to the invention of the Gilchrist-Thomas process, as mentioned before. The process also supplied a by-product in the form of basic slag which served as a valuable chemical manure. Further, Government, made the railways bring the coal and iron ore together at low freight charges. The engineering industry was rapidly developed after the coal and iron industries, so that Germany could itself supply most of the engines and machinery required for its industrialisation. The industry progressed further, with the development of electricity. In the latter also, Britain had led the way, but as it did not have a large scope for it, Germany took it up and developed it greatly. Germany followed Britain's lead in the chemical industries also and benefited greatly from the large supplies of potash, which it possessed¹⁰. Britain was the first in the world, with Germany as second, as regards heavy chemicals, but in light chemicals and dyes, Germany occupied the pride of place. Finally, Germany developed the cotton, woollen and silk textile industries to a considerable extent.

7. *The Revolution in Russia.* Until the end of the Crimean War in 1856, Russia was a mediaeval country, with its economic life based on serfdom and a self-sufficing economy, living by agriculture of a primitive type and supplying its wants by means of some industries. She had escaped the influences of the French Revolution. Then the rapid transformation of Russia into a modern state was brought about by three factors, viz., the emancipation of the serfs which made 40 million people, constituting the bulk of the Russian population, free, the advent of the railways and the change from barter economy to money economy.

On account of its peculiar geographical conditions, railways have meant more to Russia than to any other country in the world. Canals are not possible in the country on account of the extreme cold and small rainfall. Access to it during the

¹⁰ See Clapham, *Economic Development of France and Germany*, p. 305.

winter is very difficult, except over the land frontier, on account of the freezing of the Baltic ports, the White Sea and the Sea of Azov, into which the Don flows, while the biggest river, the Volga, flows into the Caspian and not the open sea. Moreover, the different parts of Russia could be connected with each other during winter only by sleighing over the snow. So in Russia, the railways have made up for the lack of access by coast, counteracted the snow and the small rainfall, united the country and enabled the transport of bulky articles. Moreover, they have linked up the woody North with the treeless South, thereby enabling them to obtain each other's grain and wood; they made fuel available and enabled the exploitation of the iron, coal and petroleum deposits, and the development of industries; they enabled the cultivation of the Black Earth Zone and the steppe to be extended, especially in cotton; they extended Russian trade in the East, by penetrating into Siberia, Persia and Manchuria, and they brought about the growth of the Russian cotton industry, by enabling its products to be sold in the markets of Asia, as the Russian market was too poor to take up all of them. Further, by facilitating large exports of wheat to England, they made it possible for Russia to obtain the bullion and raise the loans that were necessary for substituting money for services and payments in kind as the basis of all transactions. Establishment of money economy meant a radical reconstruction of Russian economic organization. Contract and competition took the place of status and custom. Self-sufficiency was replaced by production on a scale, which yielded a surplus for the market. Peasants could move to the towns and enter industries. So modern industrialism was born in Russia.

The industrial development was assisted much by foreign capital. The railways and new banks from the sixties attracted it and developed a capitalistic tendency in the country. But until the eighties, there was not much industrial progress, and the railways had to be built with imported foreign material. So, high import duties were levied and bounties on home production were granted. This tempted large amounts of French and English capital to come into the country and the industrial development was greatly accelerated. The large coal fields, iron mines and petroleum fields of South Russia began to be developed with foreign capital. The foreign capitalists did not merely establish new industrial centres. They also spread technical knowledge, promoted the spirit of enterprise and stimulated initiative by their own example¹¹. The construction of the railways, especially the Siberian railway, promoted greatly the progress of the iron and coal industries, by creating a large demand for rails

11 See Clive Day, *op. cit.* p. 549 and Millar, *Economic Development of Russia*, p. 269.

and other railway material. When completed, they carried commodities cheaply over great distances, e.g., cotton piecegoods to China, and thus promoted industrial development still further. The cotton textile industry developed round Moscow, because raw cotton could be carried there cheaply by the Volga. The industrialisation reached its peak during the energetic ministry of Count Witte (1893-1903). The completion of the railway programme created a slump in the coal and iron industries, and a general depression started a slump in 1903 and was accentuated by the Russo-Japanese War. It disappeared by 1908 and industrialization progressed further until the beginning of the First World War, partly with fresh foreign capital and partly with fresh foreign capital and partly with Russian capital¹².

8. The Revolution in Japan The modern economic development of Japan commenced in 1868, when the feudal system, which had determined the political, social and economic organization of the country, was abolished, the power of the Shogun or the Imperial Commander-in-Chief, who had been the most powerful of the feudal lords of the country, and who had exercised the sovereign authority in the name of the Emperor, was overthrown and the Emperor Meiji took up the sovereign powers in his own hands. He ruled up to 1911 and carried out a number of radical reforms. This period is known as the period of Meiji (great enlightenment) Restoration. His government realised early the necessity of establishing modern industries of the Western type, in order to strengthen the country and to prepare her for defence from the aggression of foreign power, which were eager to conclude commercial treaties with her and then to penetrate and exploit her economically. But private enterprise could not have brought about the industrial development and the State had to initiate and promote it for the following reasons: (1) Feudalism had prevented the growth of initiative and the spirit of enterprise. (2) The people had little capital, because they had been exploited by the feudal lords, who themselves had little or no idea of saving. Japan had not accumulated any capital by commerce, on account of her policy of seclusion, and had no moneyed commercial class. (3) Japan had no prosperous domestic industries.

The industrial lead, therefore, had to be given by Government, which began to play the role of an entrepreneur and started railways, telegraphs and silk, woollen and cotton, textile and glass factories, by borrowing funds from abroad and engaging the services of Dutch, German, French and English technicians. When these industries were firmly rooted, they were transferred to private enterprise provided by a few families, under Government patronage. Even then, Government con-

12 See Knowles, *op. cit.* p. 185.

tinued the policy of promoting industrial development and passed Commercial, Bank and Stock Exchange Acts, in order to promote the sound organisation and development of commercial and industrial enterprises, bank and the money and capital markets. Thus, by the time of the commencement of the war with China in 1894, the period of experiments and consolidation was over.

The war with China, in which Japan emerged victorious, stimulated Japan's industrial development. The large indemnity obtained from China helped it to introduce the Gold Standard. Its success also made the Western Powers show more respect to it and revise the commercial treaties which had denied it freedom to impose import duties. Its Government, therefore, gave protection by means of import duties to those industries, which were threatened by foreign competition. It also gave bounties to those industries, the rapid development of which was regarded as necessary. Moreover, it taxed the industries lightly in order to stimulate their development. Further, it played the role of the industrial financier and through the Industrial Bank of Japan, provided finance to several industries. In these ways it directed the energies and resources of the country into proper industrial channels. It stimulated the shipbuilding and chemical industries by means of subsidies, the former for developing the foreign trade, the latter for developing agriculture. By the end of the 19th century, not only had the foreign trade of Japan expanded considerably, but also manufactures began to play a prominent part in its export trade.

Its war with Russia in 1904-05 and success in it, stimulated its industries still further. Its credit in the foreign money markets went up remarkably, and it used the credit for borrowing large funds for its further industrial development. Thus, by the beginning of the First World War, it had developed the textile, metal, electrical, rubber and shipbuilding industries, laid the foundations of a modern industrial system, freed itself from the control of the Western Powers in pursuing its commercial policy and expanded its foreign trade.

There were, however, certain special features in the industrial development of Japan. Firstly, agriculture continued to occupy a predominant position in its economy. Secondly, small-scale industries occupied a dominant position in its industrial system for the following reasons: (1) As small establishments were free from the restrictions of the Factory Act, their owners could exact maximum work from the workers employed in them. On account of the excessive pressures of population on agriculture, many were compelled to make their daughters work in them. (2) Abundant and cheap electricity was available for such establishments even in villages. (3) They had adequate and efficient transport facilities in villages. (4) They could

manufacture a wide variety of goods to suit different rates. (5) Their overhead expenses were very low. (6) Many of them worked in conjunction with big establishments in cities, supplying parts of goods to the latter.

Thirdly, a few families, some of which had descended from the old feudal lords, such as Mitsui, Mitsubishi, Sumitomo and Yasuda, owned and controlled many industries, banks, insurance and shipping companies, and dominated the industrial system. This industrial and financial oligarchy was at an advantage in exporting goods and buying raw materials. Its control over raw materials and finance enabled it to exploit small establishments. But its existence hampered the growth of large-scale enterprises on up-to-date lines, because it threw its weight on the side of small establishments, owing to the fear of otherwise losing its monopoly. The last feature was the lopsided development of the industrial system, owing to the predominance of the textile industry and the comparative neglect of the heavy industries, so that the industries of the country had to depend largely upon Western countries for the machinery needed by them¹³.

9. *The Growth of Population.* The efficiency of an organization can be tested by the number of people it can maintain in a given area. The population of England and Wales increased as follows: Year 1500—3 million; 1600—4 million; 1700—6 million; 1800—9 million; 1830—14 million; 1850—18 million; 1870—23 million; 1890—20 million; 1910—36 million. King, writing about 1700, expected the population to be double in 600 years and to double again in the succeeding 1200 years so that in 3500 A.D. it would be 22 million and would be incapable of further increase, because there would be only 2 acres of agricultural land per capita. Malthus had stated in 1798 that the growth of population was being checked positively by misery. The contrast between the estimates of King and the actual growth of population shows the justice of calling the economic changes, which took place in the latter half of the 18th and the first half of the 19th centuries, a revolution. The Industrial Revolution promoted economic efficiency to such an extent that not only did it provide for the rapidly growing population, but also raised its standard of living to a remarkable extent¹⁴.

The rapid industrial progress of Germany led to a rapid growth in its population. More than the entire growth was taken up by cities, and the absolute number of people engaged in agriculture declined slightly. Hence, the proportion of the urban population to the total population went on increasing and the number of cities, possessing a population of 100,000 and over,

13 See Savkar, **Modern Economic Development of the Great Powers**, p. 431.

14 See Clive Day, **op. cit.** p. 154.

increased from 8 in 1871 to 48 in 1910. The growth of the population and its urban and rural proportions were as follows:—

| Year | Total population in millions | Percentage of urban popula- tion | Percentage of rural popula- tion |
|------|---------------------------------|--|--|
| 1870 | 41 | 36 | 64 |
| 1880 | 45 | 41 | 59 |
| 1890 | 49 | 43 | 57 |
| 1900 | 56 | 54 | 46 |
| 1910 | 65 | 60 | 40 |

The population in the U.S.A. increased rapidly up to the Civil War, as any amount of fertile land was available for agriculture. It increased from 4 millions in 1790 to 31.4 millions in 1860. The rate of growth was less in the older states than the rate of the entire growth, on account of the movement of the population from the East to the West. The urban population increased from 5.3 per cent in 1790 to 16 per cent in 1860. The number of towns with a population of 8,000 and over increased from 6 to 141 during this period. The Negro population increased less rapidly than the White population, and 92 per cent of it lived in the South. The total number of immigrants during 1820-60 was large, being estimated at 5 millions. After the Civil War, the growth of population was slowed down, first by the loss of about a million young people as a result of the war, and later by the change in the attitude of the people regarding the proper size of a family, on account of the growing independence of women, the increasing cost of living and the increasing difficulty of obtaining free land in the West. Hence, the birth-rate declined. The total population increased from 31.4 million in 1860 to 130 millions in 1930. The Negro population increased from 4.4 millions in 1860 to 10.4 millions in 1920. During 1860-1900 the total number of immigrants was 14.2 millions, on account of the expansion of industries and agriculture; during 1901-1924, the number was 16.8 millions; the latter number would have been greater, if legislative restrictions on immigration had not been imposed.

The population of Japan remained steady at about 26 millions during the 18th century and the first half of the 19th century. Thereafter, it began to increase and was doubled by 1914. The reasons for the steadiness during the Tokugawa period that preceded the Meiji Restoration was as follows: (1) The powerful feudal lords did not allow the removal of food from their domains. Moreover, food could not be carried over considerable distances, owing to transport difficulties. Nor could it be imported, as foreign trade was not permitted. Farmers conducted

subsistence farming and did not keep stocks of food, lest they might be confiscated by the feudal lords or the Shogun. Hence, famines occurred at intervals and the mortality was heavy. (2) The loss of life from periodical earthquakes and volcanic eruptions was also heavy, because the loosely organised feudal government could not give the help that a modern government gives in the case of such disasters. (3) As the eldest son alone inherited ancestral property, there was a tendency to restrict the size of the family, and abortion and infanticide prevailed to some extent.

The growth of population after the Meiji Restoration was brought about by the fact that while the death-rate continued to be the same, the birth-rate was doubled in half a century. Among the industrial countries of the world, Japan alone exhibited this phenomenon, which was ascribed to the following reasons: (1) Increase in the size of the family as much as possible came to be regarded as a patriotic duty, in order that men might be available for building up a powerful army and navy, to keep out the aggressive foreigners. (2) The abolition of feudalism and the recognition of the property rights of peasants stimulated them to improve agricultural methods and to increase the cultivated area. Moreover, the commencement and expansion of foreign trade enabled the import of raw materials, which were paid for by the export of industrial products, so that less raw materials and more food could be produced. Hence, the increase of food supply kept pace with the increase of population until the early years of the 20th century. (3) The growth of population was stimulated by the development of industries and transport, so that after 1890 most of the increase was in the urban population. Soon after 1914, however, the question of feeding the rapidly growing population began to create anxiety in the minds of the social and political leaders of the country.

CHAPTER VI

THE INDUSTRIAL REVOLUTION IN INDIA

1. *Periods of the Revolution.* The Revolution began in the sixties of the last century, with the beginning of plantations and factories, but the progress made by 1875 was insignificant. During this period, a rapid decline of India's old handicraft industries commenced and went on until the end of the century. 1875-80 was a period of depression owing to a terrible famine. From 1881 to 1895 the cotton, jute and coal industries made some progress. But 1896-1900 was another period of depression owing to two famines and the outbreak of bubonic plague in a virulent epidemic form. From the beginning of this century, until the beginning of the First World War, the cotton, jute, coal and other mineral industries made substantial progress, some miscellaneous industries became prominent, the use of small machines and engines spread in the country, and the use of mechanical appliances increased¹.

2. *Causes of the Decline of Handicraft Industries.* (a) The disappearance of the Indian courts meant a stoppage of the demand for the fine goods, which were needed by the nobles for display during state ceremonial occasions. In spite of the disappearance of the courts, the demand for luxury goods, although diminishing steadily, did not disappear for some time, because the old nobles could not change their manner of living quickly; but their succeeding generations lacked the desire as well as the means to support the old handicrafts. These industries survived for some time in the feudatory states, but unfavourable foreign influences that crept in on account of foreign rule brought about their decay there also.

(b) The advent of unfavourable foreign influences. The descendants of the noble families, which had patronised the handicrafts, retired to their landed estates with the disappearance of the native courts, and their place in towns was taken up by the European officials and tourists and the new educated professional class². The European demand for the handicrafts, although far smaller than that of the native court, helped to check the rapidity of their decline. But the demand progressively lowered their standard of workmanship, because the craftsmen copied the new forms and patterns required by their European patrons without understanding them. Moreover, these

1 See M. N. Roy, **India in Transition**, Ch. I.

2 See **Industrial Commission Report**, p. 75.

patrons wanted the products as cheap as possible. Hence, the raw materials were greatly adulterated and very hasty workmanship was resorted to. The new educated Indian class, thinking that the adoption of European standards and fashions was a proof of their enlightenment, turned away from the handicrafts. The adulteration of materials and poor workmanship, which lowered the quality and value of the articles, were also due to the decline of the guilds and other bodies, which had supervised the quality of the materials and workmanship, but which now decayed with the progress of the British rule in India. Further, the disarming of the people, with the establishment of peace ruined the handicrafts connected with the demascering and inlaying of arms, weapons and shields.

(c) The adverse policy of the East India Company and the British Parliament. To encourage the new and rising manufacturing industries of England, these bodies pursued in the last decades of the 18th century and the early decades of the 19th the policy of making India the market for the products of these industries, and the supplier of raw materials needed by the industries. This necessitated a policy of checking Indian industries. So, the Company's officers were given large powers over villages and artisans; the artisans were compelled to work in the Company's factories; and while the English goods were admitted into India free of duty or subject to a very low duty, the products of Indian handicrafts were subjected to heavy import duties, ranging from 30 to 80 per cent, and even total prohibition in some cases, by the British Parliament, in order to exclude them from England. These measures were given up by the middle of the 19th century. But, by that time, the competition of English machine-made goods with the products of Indian handicrafts had become severe.

(d) Competition of English machine-made goods. The Indian handicrafts could not withstand the competition of the far superior English industrial organization, with its elaborate machinery, complex division of labour, large-scale production and efficient transport. The finer branches of the textile craft, that were in the hands of the urban weavers, were the first and foremost to suffer. The weavers could produce just as fine goods as the English factories did but at a much higher price. The village weavers who produced coarse, but cheap and durable, cloth were not much affected by the competition, because the English factories found it difficult to manufacture such cloth more cheaply. Other Indian industries also suffered similarly, especially shipbuilding, iron melting, glass and paper. The revolution in transport brought about in India by the rapid development of roads and railways, the opening of the Suez canal, and the reduction in steamer freight and in other transport costs enabled the English manufactures to be carried even to the in-

terior parts of India and to make the competition severe even there. The transport developments were too rapid to permit the artisans to adapt themselves to the changing conditions. They were compelled to give up their traditional occupations in large numbers and to take to agriculture, as the only alternative. Had the development been less quick, some of the displaced artisans might have been able to find alternative employments, and the pressure on agriculture might not have increased to the extent that it actually did.

(e) The policy of the Government in India. Government pursued in India the old colonial policy, by which India was regarded as a plantation producing raw materials. These were sent to Britain by British agents in British ships, manufactured there with British labour and capital, and sent back to India for sale by British merchants to their corresponding firms in India. The railways carried British manufactures to all parts of India cheaply and also carried raw materials cheaply from the interior to the ports for export. The colonial policy was later replaced by the *laissez faire* policy, but the effect on the Indian handicrafts was the same, and the foreign trade of India increased at the cost of the handicrafts and the internal trade. The benefit to the Indian consumer from the cheaper imported goods was more than counter-balanced by the higher taxation necessitated for granting relief to the artisans, who had turned agriculturists and who suffered from famines.

It was seen before that the advent of the Industrial Revolution in England also displaced labour from the domestic industries and caused much suffering to the artisans. But the displaced artisans were speedily taken up by factories, which went on increasing and started England on a long period of unprecedented prosperity. Hence, far from the pressure of population on agriculture in Britain increasing, agriculture began to suffer from a shortage of labour. On the other hand, in India, the results of the Industrial Revolution were the opposite for a considerable time because it was the result of outside forces. The Indian artisans had to face, for several years, the competition of goods made by machines, not in India, but in England. Hence, there were no factories to absorb the artisans displaced from urban handicrafts as well as those who would have in due course found employment in the latter³. All these persons had to fall back upon the land and to increase the pressure upon it. The ruralization of the Indian population, therefore, went on increasing.

3. *The Commencement of Modern Industries : Plantations and Factories, 1860-1875.* Restrictions placed by the East India Company, in its own interests, on Europeans, owning land

³ See Jathar and Beri, *op. cit.* p. 140

permanently in India, the Company's monopoly of trade and the absence of internal communications had prevented Europeans from coming forward to exploit Indian resources. But, with the gradual removal of these hindrances, they came forward to do so, and their efforts first took the form of tea and coffee plantations. Before 1860, the number of tea gardens in Assam had been small, because grants of land had been made only to those applicants, who had sufficient means to cultivate the land and who undertook to bring a certain proportion of the land under cultivation in a certain number of years. But Government became eager to promote the industry and relaxed these safeguards in 1860. Thereupon, speculators, thinking that the future of the industry was very bright, rushed into it, and a large number of tea gardens came into existence in Assam. The coolies for them had to be imported from Bengal, through contractors, who misled the coolies regarding their prospects on the gardens. The coolies during the period of their contracts, were no better than serfs, were ill-treated and arrested and brought back, if they ran away. The great speculation in gardens resulted in the failure of a number of them between 1866-70. After this, the industry came to have solid foundations and progressed steadily. Tea gardens were established also in the Kangra valley in the Punjab and in the Nilgiris.

The first coffee garden was started by a European in 1840. But the number increased from 1860 in Mysore, Coorg, and Nilgiri and Malabar areas of Madras, owing to the fall of coffee cultivation in other countries, and exports of coffee increased steadily. The condition of the coolies on these gardens was better, because their homes were near, the climate was healthy and the control given to the planters by legislation over them was less strict. The success of their capital and enterprise on these plantations induced the Europeans to play a more prominent part in the industrial development of India later. This had a great influence on the development.

The first cotton textile mill began to work in India in 1854 and by 1861 a dozen mills were operating. Then, for a decade, the growth of this industry was arrested first by the high price of raw cotton resulting from the American Civil War, then by the collapse of credit brought about by the failure of a number of companies that had been formed recklessly during the cotton boom, and finally by the severe trade depression in Bombay⁴. Hence, there were only 18 mills in Bombay and 2 in Bengal in 1872. But the crisis showed that this was the only stable and profitable industry. Hence, with the renewal of confidence, it progressed and by 1879 it came to be recognised as the most important factory industry in India, with 56 mills, nearly 1½ million

⁴ See D. E. Wachha, **A. Financial Chapter in the History of Bombay.**

spindles, 13,000 looms and 43,000 workers. The number of looms in comparison with that of the spindles was very small, and a majority of the mills were only spinning mills. Of the mills, nearly $3\frac{1}{4}$ were in the Bombay Presidency and more than $1\frac{1}{2}$ in Bombay City.

Until the sixties most of the cotton sent to Bombay was ginned and pressed there. Then, steam gins and presses began to be established in the cotton areas themselves, and by 1880 only a small quantity was sent unpressed to the ports. Although this industry gave employment during a part of the year to a substantial number of underemployed agriculturists, it was not important in the industrial development of India, as it was purely seasonal and did not change the raw material into a finished commodity.

Until 1830, the jute handloom industry flourished in Bengal. Then, it declined on account of the growth of jute mills in Dundee. The importance of jute for gunny bags, sacking ropes, cordage, etc., increased with the Crimean War, which for some time made the Russian hemp, the competitor of jute, unavailable. Hence, from the sixties, jute mills began to be established in India, and by 1880, there were 20 mills, employing 20,000 workers: of these, 17 were in the neighbourhood of Calcutta. Most of them were owned and managed by Europeans. With increasing exports of raw jute presses were established in Bengal.

With railway construction, coal mining became important from the sixties⁵. Before this, there was little demand for coal for industrial purposes, and without railways, coal could not be carried cheaply. The railways required large amounts of coal for their own use, as wood in the surrounding areas became scarcer and dearer. By 1880, 56 coal mines were working in the Raniganj area in Bengal, which was by far the most important area. The mines in the C. P. were unimportant. The railways in Western and Southern India could not get the coal from Bengal cheaply; hence with their expansion, the import of foreign coal went on increasing, especially after the opening of the Suez Canal, although the production of Indian coal also went on increasing. Coal was not exported from India. Machinery was used in the larger mines, but not in the smaller mines, which predominated in number. The industry employed 20,000 workers in 1880 and was the only mineral industry then.

It is thus seen that in 1880, although the cotton and jute manufacturing and coal-mining industries were the only important industries in India, they were small and employed only a few thousand workers, while a far larger number of workers was being thrown out of the Indian handicrafts.

⁵ See Gadgil, *op. cit.* p. 78.

4. *The Growth of Industries during 1881-95.* During this period, the tea industry progressed steadily, the area under the gardens increasing from 2.8 to 4.3 lakhs of acres. $\frac{2}{3}$ of this area was in the Brahmaputra and Surma valleys of Assam, $\frac{1}{4}$ in the Darjeeling and Jalpaiguri areas of Bengal, and the rest on the Himalayan slopes in the U.P. and Punjab and in the Nilgiris in Madras. Moreover, owing to the introduction of better methods of cultivation and larger use of machinery in the process of manufacture, the quantity of tea manufactured increased more rapidly than the area under cultivation. Although the system of engaging the coolies remained unaltered, there was a little improvement in their condition and treatment.

During the first half of this period, the coffee industry was depressed owing to the fall in the price of coffee in Brazil, especially as the Indian coffee had to depend almost entirely upon foreign markets. Hence, much of the area was transferred from the production of coffee to that of tea. But in the second half, the price of coffee rose owing to political disturbances in Brazil. the Indian industry revived and further transfer of land from coffee to tea was stopped.

The cotton industry progressed steadily during this period, the number of mills increasing from 56 to 144, the workers from 43 to 140 thousand; the spindles from $1\frac{1}{2}$ to $3\frac{1}{4}$ million and the looms from 13 to 34 thousand. Better machinery came into use, and finer yarn and larger varieties of cloth were manufactured. Although spinning continued to be more important than weaving, the number of looms, gradually increased faster than that of spindles, and the relative importance of weaving increased gradually. The reason for this was that the capacity of the Indian, Chinese and Japanese markets for taking up Indian yarn, especially of the lower counts, was limited, and that Japan developed its own mill industry, largely with Indian raw cotton, and gradually replaced the Indian yarn with its own yarn, in its own and the Chinese markets. As regards the location of the industry, Ahmedabad rose as a centre, next in importance to Bombay, while a few mills were scattered in different parts of the country. Of the 144 mills, 100 were in the Bombay Presidency and 67 in Bombay City⁶

The progress of the jute industry also was steady during the period, the number of mills increasing from 20 to 29, workers from 20 to 75 thousand, looms from 5 to 10 thousand and spindles from 70,000 to 2 lakhs. It, however, differed from the cotton industry in three respects. Firstly, it could not depend on the home market to the same extent as the latter, and its progress depended much upon the progress of the export of jute manufactures. Secondly, the progress of the jute industry could not

6 See Ball, **Economic Geology of India** and Gadgil, **op. cit.** p. 60.

be as continuous as that of the cotton industry, and it had to suffer periods of depression, because the demand for jute manufactures was not as stable as that for cotton manufactures. But, as the jute millowners formed an effectively organized body, they could meet the depression by a universal curtailment of hours of work. Finally, while the expansion of the cotton industry mainly took the form of an increase in the number of mills and not in their size, that of the jute industry took the form of the enlargement of the size of the existing mills. This is seen from the fact that, while the number of mills and the number of workers increased nearly in the same proportion in the cotton industry, the proportion of the increase in the number of mills was much smaller than that of the increase in the number of workers in the jute industry. Thus, the average industrial unit increased much more in the latter than in the former industry. Out of the 20 mills, the larger 26 were in the immediate vicinity of Calcutta.

The expansion of the coal-mining industry was appreciable during the period, especially towards its end, the number of collieries increasing from 60 to 123, the number of miners from 20 to 43 thousand and the output from 1.2 to 2.8 million tons. The chief obstacle to the expansion was the high railway freights. Hence the Bengal mines, which produced $\frac{3}{4}$ of the total output, but which were situated far inland, could not send coal to Western and Southern India. However, the end of the period showed that the use of Indian coal had increased much on the railways and was becoming important in factories. Moreover, the export of coal began from the end of the period, but the quantity exported, viz., about 50,000 tons, was very small as compared with the import, amounting to 3,00,000 tons.

These three industries remained the only substantial industries in India and appreciable progress during the period was made only in them. Their output, however, was far smaller than the industrial output of other industrialised countries. A few new industries were started, but none achieved any importance. The woollen and the paper industries were, next to the cotton and jute, the biggest factory industries in India. But there were only 6 woollen mills employing 3,000 workers and 8 paper mills employing 3,500 workers. This showed the poor condition of the general industrial development of India. The cotton and jute presses gave employment to a fair number of persons during their season, but the growth of this industry in any area was limited by the production of the raw material in it. With the growth of railways and factories, engineering workshops and iron and brass foundries came into existence, but their growth was limited by the growth of the use of machinery in the country. Yet, even small industrial progress on modern lines was better than no progress, and Mr. Justice Ranade, who has been

called the father of Indian Political Economy, stated that there were good grounds for hoping that India had fairly entered upon the path which, if pursued in the proper spirit, could not fail to work out its industrial salvation⁷.

5. *The Expansion of Industries, 1901-1914.* As stated before, the expansion was checked during 1895-1900 by famines and plague. Jute and coal industries were less affected than cotton by the depression because the first depended largely upon export markets, while the second upon the railways and jute factories. The railways, far from being adversely affected by famines, were busier than before in carrying food to the famine-stricken areas. The cotton industry was much more affected because the chief market for its cloth and yarn was in India. In a period of agricultural depression, the first and foremost economy that the agriculturists resort to is in the matter of cloth, and the handloom weavers with the landless agricultural labourers are the earliest arrivals at the famine relief works. The cotton industry was also affected by plague in Bombay, high price of cotton owing to the great American speculation, and the depression in the yarn market in China, which was overstocked. But even during this depression and the short world depression in 1907, the industry made some progress.

During the period, as a whole, the industry made considerable progress, the number of mills increasing from 150 to 265, the workers from 146 to 260 thousand, the looms from 37 to 96 thousand, and the spindles from 3.8 to 6.6 million. The two tendencies mentioned during the previous period, viz., a quicker increase in the number of looms than that of spindles and a greater attention to the production of finer yarn and cloth, became more marked during this period, for the same reasons⁸. The markets for Indian yarn were in China and at home. The competition of Japan and Lancashire in the former market became more severe. The demand of the latter depended upon the fluctuating fortunes of the agriculturists, who mainly used cloth woven on handlooms out of mill-made yarn. The mills, therefore, turned to the cloth market, which was stabler than the yarn market, because it was removed farther from the raw material and because it depended little upon the poor agriculturists. The cloth market was mostly at home, only about 1/7 of the total production being exported to Arabia, Persia, East Africa and the Straits Settlement.

The other tendency, viz., the production of finer yarn and cloth, was also the result of the same causes. When the industry was new and small and the markets comparatively large, it

7 Ranade, **Essays on Indian Economics**, p. 118.

8 See Graham Clarke, **Cotton Fabrics in British India**, p. 13 and Gadgil, p. 106.

could secure profits most easily by producing coarse yarn and inferior cloth, and when machinery was put up for this kind of production, it was difficult to use it for producing superior qualities. But with the expansion of the industry, the contraction of the foreign markets and the non-expansive and fluctuating character of the home market for the inferior qualities, it became necessary for the industry to turn gradually more and more to the production of the superior qualities of yarn and cloth.

The jute industry expanded substantially during this period, the number of mills increasing from 28 to 64, the workers from 78,000 to 2,20,000, the looms from 10 to 36 thousand and the spindles from 214 to 744 thousand, in spite of the increasing competition of the German and American industry in the foreign markets, on account of the encouragement given to it by its Governments, by means of protective tariffs. Hence, the exports of jute manufactures from India went on increasing, along with the increase in the exports of raw jute. The old tendency of the number of mills to increase less rapidly than that of the workers, looms and spindles continued in this period also. Moreover, a new tendency arose, *viz.*, an increase in the number of the spindles and looms more rapidly than that of the workers. This was due to the economy of labour resulting from the installation of superior machinery and the larger scale of management.

During this period, the coal-mining industry made good progress and its annual output increased from 6 to nearly 16 million tons. The progress was due to the greater exploitation of the old fields in Bengal, and not to the discovery of any new fields. It was helped by the growth of the railways and factories which consumed coal. In this period, Indian coal captured almost the whole demand of the railways, which stopped the use of foreign coal⁹. The demand of the railways was greater than that of the factories and the demand of the two taken together increased as rapidly as the production of coal in India. In its competition with foreign coal, Indian coal was handicapped by its inferiority for some industrial uses and by high railway freights to Western and Southern India, which were distant from the coal-fields. Nevertheless, the exports increased and imports diminished, so that the former came to exceed the latter, and the excess went on increasing. The large increase in the output was the result of the introduction of better machinery, chiefly in the large mines. Many of the smaller mines still continued to get on with little machinery. The progress of the industry was also promoted by an improvement in the rules concerning the grant of mining leases and licenses, so as to give the lessees and licensees greater freedom of action¹⁰.

⁹ See Gadgil, *op. cit.* p. 113.

¹⁰ See Ball, **Coal-fields of India**, Ch. II.

The manganese industry became important only with the beginning of the new century, on account of the interruption in Russian supplies, which were the largest in the world, brought about by the Russo-Japanese War, and on account of the large demand for the mineral from the steel industry of Europe and the U.S.A., which had become very active. As India had no steel industry, it produced the manganese entirely for export, and for some time was the largest manganese-producing country in the world. Even then, it gave employment to about 20,000 people only.

The gold-mining industry in the Kolar fields in Mysore State, although existing before, became important during the first half of this period owing to the discovery of rich reefs, but when these were used up and the lower grade reefs had to be worked up, the output diminished. The salt industry was important and its production was from rock, lakes and sea. But it could not meet the whole of the Indian demand, and salt had to be imported. The mica industry, although the chief supplier to the world employed about 18,000 people only. India had large iron deposits in Bihar, but attempts to exploit them had not succeeded until the Tata Iron and Steel Company began to work from 1911. But its production upto 1914 was small.

The very inadequate development of the mineral industries in India was shown by the fact that the imports of mineral products were far larger than their production in the country. Moreover, the development was one-sided. This was shown by the almost complete absence of the mining of metalliferous minerals. The reason for the absence was that the development of industries in India was not adequate enough to absorb the valuable by-products, upon the sale of which the profitability of modern metallurgical industries largely depends.¹¹

The area under coffee diminished gradually during this period, because Brazil, having got over its political troubles, could increase its production again, thereby lowering the price of coffee in the world market once more. The export of coffee from India, however, did not diminish in the same proportion as the area. Indian tea, on the other hand, improved its position in the world market, especially in the English market, by gradually driving out China tea. Then, the English market increased gradually and a large and expanding market was found in Russia. Hence, the area under tea as well as its production went on increasing. These plantation industries differed from the factory industries in the following respects:—(1) They were owned by Europeans. (2) Their share in Indian industrial development was smaller. (3) They exported most of their production.

¹¹ See Gadgil, *op. cit.* p. 117 and Holland and Fermor, *Review of the Mineral Production of India* (1904-8), p. 10.

(4) They were not subject to the ordinary labour legislation and the planters had greater control over the workers. (5) They brought waste areas under cultivation and provided employment to many people belonging to areas in which the pressure of population on the soil was excessive.

The sugar industry, which existed in the U. P. and Bengal, fared badly on account of the competition of cheap bounty-fed beet sugar from the Continent, and many refineries had to be closed down. A countervailing duty on the sugar imports imposed by the Government of India did not help the industry much, and a good deal of the area under sugarcane was transferred to other crops. The industry, however, had unsound foundations. Most of the refineries were very small, they hardly used machinery, they manufactured sugar from gur, their methods of production were uneconomical and they were not allowed by Government to manufacture rum from the molasses.

The cotton gins and presses increased in number. So did the engineering and railway workshops and the iron and brass foundries, with the growth of railways, the use of cycles and tramways, the increasing use of small machinery for ordinary work such as pumping out water, the introduction of small motors in workshops, in which no power had been used before, and the starting of flour, oil and rice mills. The industrial progress on these lines, although small, was real.

6. Slowness and One-sided Character of the Revolution. Thus, by 1914, although the handicrafts had declined much in the towns as well as villages, the growth of modern industries was small, and industries, in which processes were complicated, did not exist at all. The total number of factories, employing more than 20 workers each, was only about 7000, and they gave employment to a little more than 2 million people. Of these factories, $\frac{1}{3}$ did not use any mechanical power at all¹². The tea plantations gave employment to about 7 lakhs, cotton factories to 3 lakhs, jute factories to a little more than 2 lakhs, coal mines to a little less than $1\frac{1}{2}$ lakhs, railway workshops to about 1 lakh, coffee plantations to 58 thousand, the flour, rice and oil mills, brick and tile factories, printing presses, gold mines, iron foundries, engineering workshops, etc., to the rest of the 2 million. Thus, the chief feature of the Industrial Revolution in India was its slowness. This was also shown by the small number of towns in India and by the fact that the proportion of the urban to the total population remained steady at about 9 per cent during the long period that we have considered¹³. In Britain, on the other hand, the Industrial Revolution resulted in a more

12 See Gadgil, *op. cit.* p. 123.

13 See Wattal, **Population Problem in India**, p. 153.

rapid urbanization of the population, of which more than 3⁴ came to live in towns.

Another feature of the Industrial Revolution in India was that much of it was brought about by foreign capital and enterprise, which dominated Indian industrial development, and appropriated a large share of its profits, established strong vested interests in opposition to the political and economic interest of the Indian people, and exploited for their own benefit India's strictly limited mineral resources.

The slowness and one-sided character of the industrial development and the domination of foreign capital and enterprise were due to the following causes:—(a) The inadequacy and shyness of Indian capital. Agriculture was India's chief occupation and was carried on mostly by small peasant proprietors or cultivating tenants. This meant a more or less even distribution of India's wealth, and such distribution was bound to result in small accumulations of capital. Moreover, the owners of whatever accumulations could be made in rural areas, preferred investment in land or money lending to the needy cultivators. The accumulations of the traders were available chiefly for commerce, because the traders wanted quick and safe returns. On account of the development of railways, the moving of crops and the import trade yielded large, quick and certain profits. On the other hand, the profits from investment in manufacturing industries took a considerable time to begin and were less certain. Further, the difficulties of industries in securing capital were increased by the fact that industrial finance was absolutely unorganised. Banks existed only in the few large trade centres, and they also preferred the finance of trade to that of industry, because the former was not only safer, but also more profitable, on account of the high rates that prevailed for money accommodation during the busy agricultural and trading season.

(b) The prevailing ignorance regarding some of India's natural resources. Thus, there was great ignorance regarding the extent, the exact location and the commercial possibilities of iron deposits.

(c) The difficulty of obtaining cheap power. All the good coal and most of all coal were located in the north-east corner of the country, involving long and very costly train loads. Hence, Western, and still more Southern, India could not depend much upon coal supplies. Petroleum could be used advantageously only in small engines. Moreover, it had to be brought from Burma and elsewhere.

(d) The absence of metal industries, especially the iron and steel industry. So, the railways had to be constructed with imported materials. All the machinery of the textile and other

mills had to be imported. Almost all mechanical appliances had to be imported. This not only slowed down the introduction of these appliances in the country, but also made it difficult for Indian industries to face the competition of foreign rivals even in the home market.

(e) The inefficiency of Indian workers, more than in proportion to the low wages that they received. Hence, in spite of low wages, labour was dear. Moreover, in spite of excessive pressure of population on agriculture, industries suffered from a scarcity of labour. This paradox was due to the unwillingness of agriculturists and artisans to take up work in factories, owing to the hated restrictions and discipline of factory work and the drawbacks of life in crowded towns. Hence, the industries had to depend upon a labour supply that was intermittent, irregular, lacking in ambition, and insensitive to the stimulus of higher wages¹⁴.

The inefficiency of labour was due to the following causes:—(i) Illiteracy prevented the workers from obtaining that knowledge of things in general, and technical processes in particular, which is the basis of efficiency. They were unable to grasp even simple mechanical operations and became very inefficient, when they had to operate a complicated machine. Moreover, owing to illiteracy, they had no desire to raise their standard of living. Hence, a rise in their wages increased their absenteeism and not their efficiency. (ii) The low standard of living of the workers, with poor dietary, insanitary housing and unhealthy surroundings, sapped physical energy, which in turn destroyed mental vigour, ambition, initiative and the desire for progress. Moreover, the habits and surroundings of the workers resulting largely from their low standard of life, made them victims of diseases, such as malaria, hook-worm and dysentery, which were partly responsible for their inefficiency. (iii) The efficiency of management, on which labour efficiency depends substantially was low in many establishments. As machinery had to be imported from distant foreign countries and was very costly, it was sometimes out of date, and the same was true of some of the technical processes. Moreover, as machinery was not only costly, but also difficult to procure and to maintain in repair, many employers organized production on lines different from those adopted in the West, so as to get with as little machinery as possible and to depend most on cheap labour. The labour leaders also supported this policy and opposed reforms which, while increasing the output per head would have diminished the number of workers employed per machine or process.

(f) Owing to the lack of facilities for technical education

¹⁴ See Anstey, **op. cit.** p. 229.

in the country, technical scientific experts and highly skilled workers had to be imported, and on account of India's political dependence, they were not replaced in course of time by Indian experts, trained in the country itself. It was, however, true to some extent that educated Indians were reluctant to take up technical and scientific education for the purpose. (g) There was a scarcity of Indian industrial leaders, entrepreneurs, foremen and managers experienced in the practical management of industrial establishments and the standards and requirements of markets. Moreover, the Managing Agency system concentrated industrial leadership and control in the hands of a few families and made it very difficult for men, who were capable and ambitious, but lacked wealth and social connections, to obtain positions of responsibility.

(h) Owing to the deficiencies of industrial leadership, there was no co-ordination of the supply of the different pre-requisites of industrial production and no central control over industrial development in general. The policy pursued by the Government of India in this respect was unsatisfactory for a long time. Its pursuit of the colonial and plantation policy at first, and of the *laissez faire* policy afterwards, has been explained before. By the beginning of the 20th century, Government had barely begun the policy of conscious development. For a long time, the interest of Government in the industrial development of the country was occasional, haphazard and most inadequate. All that it did was to make a poor provision for technical and industrial education, the collection and issue of information, on some commercial and industrial matters, the holding of a few industrial exhibitions and the preparation and publication of a few articles on industries.

In 1905, a separate Department of Commerce and Industry was established by the Government of India, but it did little for promotion of industries. On the other hand, when the Madras Government prepared a programme of Government help and guidance to Indian industries, conducted successful experiments in the aluminium industry and stimulated handloom weaving and the chrome process of manufacturing leather, Lord Morley, the Secretary of State, came down upon it in 1910, and in a Dispatch condemned any direct efforts of Government to start new industries, even for experiment and demonstration and finally handing them over to private entrepreneurs. He stated that the only policy that he was ready to sanction was that Government money should be spent upon making known to the Indian people improvements in the methods of production carried out by the Western countries with the help of modern science, and that Government must leave it to private enterprise to demonstrate that the improvements could be turned to the commercial and industrial benefit of India. Lord Crewe, the next Secretary

of State was prepared to sanction a less restricted policy, but the Government of India expressed grave doubts about its ability even to carry out the excessively cautious policy laid down by Lord Morley, on account of the lack of proper organization and equipment, and was not prepared to sanction schemes for demonstration machinery, financial assistance and other kinds of assistance to industries. Thus Government made no use of the popular enthusiasm for the development of Indian industries that was created by the Swadeshi movement in the opening years of the new century. The movement from this viewpoint was beneficial. But it died out soon, because Government, far from using it to bring about the industrial regeneration of India, suppressed it, on account of its political leanings.

7. The Growth of Some Towns and Decline of Others. The growth of towns is the best general indication of the industrial progress of a country in modern times. Applying this test, it is found that the proportion of the urban population to the total population in India, as revealed by the census statistics, was remarkably steady from 1872 to 1911, the fluctuations in the proportion being very narrow, viz., between 9 and 9.5 per cent, and even in 1921 it was only 10 per cent.¹⁵ This steadiness was the result of the fact that two opposite sets of tendencies, one stimulating the growth of towns and the other causing their decline balanced each other. This steadiness showed that industries developed in India very slowly. Whatever growth took place in towns was the result much more of the growth of commerce than of industry. The industrial towns, with the exception of Ahmedabad and a few jute towns on the Hooghly, hardly existed in India. Even in the mixed type of towns, partly commercial and partly industrial, their commercial aspect was far more important than their industrial one.¹⁶

The following factors favoured the growth of towns:—(a) Railways favoured the growth of towns in two ways. Firstly, if a town was already a trade centre, the passing of railway through it increased its importance, trade and size. Secondly, a railway passing through an area established new centres of trade in it. The development of navigation produced a similar result. Bombay, Karachi, Madras, Calcutta, Delhi, Lahore, Bangalore and Hubli were examples of the growth of such towns. (b) The growth of industries contributed partly to the growth of towns, such as Bombay, Calcutta, Ahmedabad, Sholapur and Hubli. The Census of 1911 showed that only 30 per cent of the people of such towns were engaged in industrial occupations. Jamshedpur was the only example of a purely industrial town growing rapidly after 1911, on account of the establishment of

15 In the Census Reports, a town was defined as any place containing over 5000 inhabitants.

16 See Gadgil, *op. cit.*, p. 157.

the iron and steel there. (c) During famines, rural people went to towns in search of work. A portion of them stayed there permanently, having secured permanent employment there, but the greater portion returned to the villages, with the arrival of the next monsoon. (d) Famines and dispossession of peasant proprietors by money-lenders and others augmented the number of landless labourers, who went to town in search of work and stayed there, if they found permanent work there. (e) Rich landlords and others went to town to settle there and to enjoy the pleasures of town life. (f) Some bigger towns expanded at the cost of the smaller ones, owing to the concentration of trade in the former brought about by the better facilities and larger markets offered by them, and owing to a greater rise in the wage rates in the former to keep pace with the rise of prices. The same result was produced also by the centralisation of administration. The district headquarters grew at the expense of the taluka towns, as the people living by the administration of justice, revenue, etc., assembled there. Similarly, the divisional headquarters, and provincial and state capitals grew.¹⁷

The following factors caused the decay of towns:—(a) The diversion of trade routes brought by railway construction was responsible for the decay of several old towns, whose previous prosperity had been due to the passage of river or road traffic through them, e.g., Mirzapur and Patna on the Ganges, at Saugor in the C.P. The railways could not always be so constructed as to pass through all the old towns. Moreover, many old towns were ruined by the changes in the course of the Ganges. (h) The decay of handicrafts, after the disappearance of the courts and advent of the competition of cheap European goods, caused the decay of old towns, like Murshidabad which in Clive's opinion was more populous than London, Malda, Santipur and Paithan and Tanjore (c) Epidemics, like the plague killed many people in congested towns, especially in the Deccan, the C.P. Bihar and drove the others to the rural areas. Most of the latter, however, returned to the towns eventually with the abatement of the virulence of the epidemics.

3. *The Reorganization of Urban Handicrafts.* As seen before, most of the crafts declined in importance during the 19th century. But some of them, such as cotton and silk goods, brass and copperware, gold and silver work, artistic working in metals, ivory and wood carving kept a good deal of their former commercial importance, because either the old demand for their products remained to a large extent, or a new popular demand was found for them in place of the old demand of the courts. These handicrafts were gradually reorganized. In some cases, the reorganization took the form of abandonment of the production of

17 See Jathar and Beri, *op. cit.* p. 145.

the best classes of articles and the production of cheaper goods. In most cases, it took the form of a greater localization of the crafts and a greater specialization within them, in the different towns, on account of the widening of the market and the introduction of foreign competition.¹⁸ Another result of the widening of the market was that the actual producers and consumers could no longer be in direct touch with each other and therefore, the merchant-capitalists became necessary as middlemen. This, combined with the artisan's lack of capital, deprived him of his independence. Foreign competition, provided it did not submerge the crafts, made it necessary for the capitalists to compel the artisans to abandon antiquated methods and to adopt new ones. This strengthened the position of the middlemen.

The credit needed by artisans was supplied at first by the dealers, in the raw materials required by the former. The dealers, however, had no concern in the sale of the finished goods. The next development came, when the dealers in raw materials also bought the finished goods from the artisans and marketed them. A further development came, when the dealers gave the raw materials to the artisans and paid them piece-wages for producing finished goods out of the materials. The final development came, when the capitalist made the craftsmen work together in his own workshop or small factory. These different forms existed in the different urban crafts and, in a few cases, in the same crafts.

The artisans remained more or less independent in those crafts in which little capital was needed and the demand was near. But they came under the power of the capitalists in those crafts, in which the materials were expensive and the demand was distant, seasonal or uncertain. On account of foreign competition, workshops or small factories were established in those crafts, in which a fairly stable demand made the introduction of labour-saving machinery or other methods of securing economies in production, possible. The artisans were poorly paid, the conditions of their work were not satisfactory and they had no opportunities for improving their condition.

The working of the above forces may now be examined with reference to the cotton handloom weaving, which was by far the most important and far-flung craft in the country. In the small centres of industry, the independent weaver, who had little capital of his own, could buy only a small quantity of yarn from the local dealer, wove it into coarse cloth and sold it to local consumers. Sometimes, he had to buy the yarn on credit. He then simply paid interest to the dealer. He produced only coarse cloth, because a near and steady market that was neces-

¹⁸ See Gadgil, *op. cit.* p. 194.

sary for him, was available only for such cloth. The market for the finer qualities was distant and seasonal. He was not to be found much in the larger centres, because there he found it difficult to be in direct touch with the consumers. His financial position was perilous, because inability to sell his goods quickly meant indebtedness to the yarn dealer, who was also the cloth dealer, and to whom he was obliged to sell his goods. In many cases, the yarn and cloth dealer stipulated that the weaver, instead of paying him interest on the credit of yarn, should sell him the cloth at a certain price¹⁹

The weaver came off very poorly in this arrangement, because he had to pay a high price for yarn and got a low price for his cloth, so that a mere subsistence allowance was left to him. But he at least retained partial independence. When, however, his indebtedness to the dealer increased he was compelled to mortgage his loom to the latter and to become a mere piece-wage worker for the latter, with no chance of recovering even partial independence. Thus, in many centres, half the weavers were semi-independent, and the others worked as piece-wage earners for a few capitalist dealers.

In certain branches of the craft, in which the raw materials, such as silk and gold thread, were expensive and the demand distant and specialised, the independent weavers did not exist at all. Although the weavers worked in their homes and on their looms, they did so to the order of the dealers. Some weavers were in such a bad condition that they had lost their looms and had to work as 'cooly weavers' on the spare looms of the well-to-do weavers. They were to be found in large numbers in the bigger centres. In this industry, the factory system hardly developed, and the commission or the domestic system predominated, discontinue his orders to the artisans in the slack period, without much loss to himself. Moreover, the economies that could be secured by introducing the factory system in this industry were not important enough to justify the payment of higher wages, to induce the weavers to leave their homes and to come to the factory for work. Improved methods of production, such as the fly-shuttle, could be used just as well in their homes as in the factory. Moreover, if they came to the factory for work, they lost the help of the members of their family, that they got at home. For this reason, and also on account of the greater restrictions of the factory, they were unwilling to work in it regularly.²⁰

9. *The Growth of Population in India.* The first census of population was taken in 1872 and afterwards, after each decade. The growth of population in India, including Burma, as shown

19 See P. N. Mehta, **Report on Handloom Weaving**, p. 35.

20 See Gadgil, **op. cit.** p. 191.

by the census figures, was as follows:—1872—206 millions; 1881—253; 1891—287; 1901—294; 1911—315. The real increase, however, can be arrived at only after making due allowances for two factors, *viz.*, increase due to the inclusion of new areas and increase due to improvements in the methods of collecting the figures. When these allowances are made, it is found that the real increase of population was as follows:—1872-81; : 3 millions; 1881-91: 24; 1891-1901: 4; 1901-11: 19 millions. The real increase was slower in India than in Europe, because although the birth-rate was higher in the former, the death-rate was even higher, so that the survival rate was lower. The largest real increase took place in the second decade, *viz.*, 1881-91, because this decade was free from the occurrence of special calamities. In the first decade, there was a severe famine in South India, *viz.*, that of 1876-8; in the third decade, there were plague and famines; and in the fourth decade, although the virulence of plague was reduced, malaria prevailed in an epidemic form in certain parts in India.

CHAPTER VII

THE REVOLUTION IN TRANSPORT

1. *Importance of the Revolution.* The mechanical inventions, which brought about the Industrial Revolution, created a revolution in transport also. The ease, rapidity and cheapness, with which large numbers of passengers and large quantities of goods could be moved over great distances with the help of the inventions, produced fundamental effects upon the entire economic system. The radical improvements in the means of transport extended the size of the market and this led to remarkable economic changes. The Industrial and Commercial Revolutions, once started, reached further stages with further improvements in the means of transport, *viz.*, the construction of improved roads and canals, the building of railways and the use of steamships.

2. *Roads in Europe.* The roads in Europe were in a wretched condition until the middle of the 18th century. They were mere earthen tracks or bridle paths for pack ponies and riders. Apart from the danger from robbers, the travellers by coaches ran many dangers of accident, through upsets and breakdowns, and found journeys most tedious. They found it safer and quicker to travel on horseback. Wagons found it much more difficult than coaches to move on the soft and uneven surface of the roads. Hence, bulky commodities, like grain and coal, had to be carried by pack ponies and the cost of carriage was high even for short distances. Wheeled traffic began to increase with the expansion of trade in the 18th century, but the vehicles wore the earthen surface of the roads into great ruts and the roads became worse, just when it became more necessary to use them for moving larger quantities of raw materials, and manufactured goods. The entire industrial progress of the 18th century would have received a setback, if the roads could not have been greatly improved.¹

The development of roads in Great Britain was held up for a long time by the very defective system of road administration provided by an old law of 1555, under which each parish had to maintain the roads passing through it, with the forced labour of its inhabitants for 6 days in a year. This system was unfair, because often the inhabitants of a parish were not the principal users of its roads especially if they were trunk roads. Hence, the parish authorities were very careless in the maintenance of

1 See Birnie, *op. cit.*, p. 35.

the roads. It, therefore, became necessary to devise a system by which at least the more important roads would be maintained in a passable condition, and the British Government with its tradition of individualism, left it to individuals. So, in the 18th century, landowners and certain other persons were permitted by private Acts of Parliament to reconstruct and pave stretches of roads in such a manner that wheeled vehicles could use them easily. These persons formed turnpike trusts and were permitted to levy tolls on the users of the roads, so as to obtain a fund for road maintenance and profit for their efforts. Thus, in the second half of the 18th century, there came into existence a network of improved and fairly good turnpike roads in the hands of over a thousand different turnpike trusts, and in varying degrees of efficiency. Beyond them, the old network of parish roads, which were unmetalled tracks, continued to exist, because enterprising and wealthy landowners did not come forward to convert them into turnpike roads. Hence, many towns were cut off during the winter.

At the beginning of the 19th century, three great reforms revolutionized the use of the turnpike roads. First, Macadam invented a durable surface and thereby removed the greatest difficulty of the trusts. Secondly, Telford taught them the engineering of the roads. Finally, the trusts began to combine into larger areas, for which salaried officials were appointed, and a more uniform system of upkeep was established.² For nearly a hundred years, Britain depended chiefly on the trusts for the maintenance of its roads. But in the early decades of the 19th century, it was realised that the system had become out-of-date and that the tolls were hampering the expansion of trade. Hence, the Highways Act of 1845 inaugurated a better system by abolishing compulsory labour for the maintenance of roads and empowered each parish to levy a rate and to appoint a salaried official for the maintenance. Soon after the highways had become really efficient the turnpike trusts were ruined by the competition of the railways and had to be wound up and the care of the main roads was handed over in 1888 to County Councils, the others being transferred to the rural or urban District Councils. In 1909, a central Road Fund was started with the proceeds of motor taxation and grants began to be made from it to the local road authorities, thereby admitting the principle, at least partially, that the upkeep of the roads was a duty of the State.

In the other countries of Europe, the construction of proper roads started only after the early decades of the 19th century and was interrupted by the advent of the railways. It was only in the fifties, that the Government of Prussia paid much atten-

2 See Knowles, **Industrial and Commercial Revolution**, p. 238.

tion to the improvement of roads and for many years afterwards the roads of Eastern Germany continued to be in a wretched condition. The same was the case with the countries of Eastern and Southern Europe.

The development of roads benefited chiefly passenger traffic. Goods were carried on water, wherever possible, because the cost of carrying them on roads was still high. But with the development of railways, roads lost even the long distance passenger traffic and became chiefly feeders to the railways. But, from the early decades of the present century, they began to be developed further with the advent of motor vehicles.

3. *Roads in India.* On account of the vast size of India, the distances to be travelled are great. Moreover, the natural obstacles to be surmounted in moving from one area to another are tremendous. Again, the seasonal rainfall is heavy in many parts of India. Hence, the means of communication were very inadequate and defective, until the middle of the 19th century. The trunk roads that had been built by Indian rulers, particularly in Northern India by the Moghul rulers, were too few to meet even the most moderate needs of India. Many of the roads were no better than fair-weather tracks, and could not be used by carts during the monsoon. Pack animals were the only means of transport to many parts of the country. Further the roads were infested by Pindaris, Thugs and other highwaymen and robbers. The means of communication were less unsatisfactory in Northern India, on account of its vast plains and navigable rivers, than in peninsular India, with its hills and mountains and poor facilities for water transport except on two coasts.

The East India Company paid little attention to the development of roads, and being primarily a commercial body, neglected this important duty of a modern government. The small progress that was made due to the efforts of individual administrators like Lord William Bentinck, who stressed the importance of linking Bengal with Northern India. This brought into existence the Grand Trunk Road connecting Calcutta with Delhi and Peshawar. The Company thought that roads were required mostly for military purposes and placed them in charge of Provincial Military Boards. There were no Public Works Departments to look after roads in the interests of trade and civil population. Lord Dalhousie, however, inaugurated a new era of road construction. This led to the replacement of the Military Boards by the Central and Provincial Public Works Departments.

The growth of the railways, in which the Government had vital financial interest, led to the neglect of those trunk roads, which, running parallel to the railways, could compete with them. But it encouraged the construction of bridges and metalled roads, at right angles to the railways, and giving access to

them throughout the years, so as to serve as feeders to them, instead of competing with them. Road construction received further encouragement from the policy of Lords Mayo and Ripon, regarding the grant of increased powers to the local self-governing bodies.

Thus, by the end of the 19th century, the roads, railways postal and telegraph services had effected a revolution in the means of transport and communication. There were 37,000 miles of metalled and 1,36,000 miles of unmetalled roads. There were four great trunk roads, the Grand Trunk Road, mentioned above, and other three linking Calcutta with Madras, Madras with Bombay, and Bombay with Delhi. Most of the other important roads were connected with them. Moreover, good metalled arterial and district roads were constructed in most parts of India, and thousands of miles of serviceable, kachcha or unmetalled roads and bridle tracks were made in every part. Further progress was made in the opening decade of the new century, and the amount of wheeled traffic increased immensely in every district. As regards the length and condition of subsidiary roads, Southern India was in the best position, and Rajputana, Sind and parts of the Punjab, Orissa and Bengal were in the worst condition, on account of unbridged and unbridgeable waterways, difficulties of the ground, absence of suitable road material, sparseness of population, aridity, etc.

Considering, however, the vast size and population of India, the above progress was very inadequate for its needs, and its economic progress was hampered thereby. Many villages particularly were isolated on account of the absence of feeder roads to connect them with the trunk roads or railways. Neither the Central nor the Provincial Governments had definite annual programmes of road construction. Moreover, some of the roads were allowed to fall into disrepair, particularly those which were in charge of local bodies, whose financial resources were very meagre.³ The stimulus given to road construction and improvement by the development of motor transport was absent in India until after the World War I.

4. Inland Waterways in Europe. Until the advent of the railways, transport by water was easier and cheaper than that by land and a country like Britain possessing a long coastline and navigable rivers was in a very advantageous position for securing expansion of trade by developing water transport. Hence, the means of inland water transport were developed during the very period in which the roads were improved and extended.

In the later Middle Ages, Dutch and Italian engineers knew how to construct canals, but the era of canal construction com-

³ See Jathar and Beri, *op cit.*, Vol. II, p. 196.

menced only from the middle of the 18th century. The initiative at this time was taken by Great Britain, whose growing industries needed better means of carrying bulky commodities, like coal, iron, clay, raw cotton, etc., than carts or pack ponies. Thus, the Industrial Revolution and canal transport stimulated each other. Between 1760 and 1830, canals were developed as the most important part of the transport system of Great Britain, and its industrial existence depended on them. In the last decade of the 18th century, there was a great canal mania in the country, and a network of inland waterways, constructed by many private companies was formed. As many of the canals linked up rivers, the latter had to be improved and came to be known as inland waterways or navigation.

This was a great achievement for Britain, as its people had little experience in the matter, and was most advantageous to its industrial development. The age of canals and the subsequent age of railways coincided with definite stages in the industrial development of Britain. The companies could acquire land for building canals only under Acts of Parliament, which laid down maximum charges for the use of the canals. The companies were very successful financially. The canals and the inland navigations were meant for small barges only, as they were to compete with roads. The companies did not carry any goods themselves and allowed anyone to put his barge on a canal after paying the toll.

As the companies were numerous, the canals varied in gauge, depth, locks, sizes of tunnels, heights of bridges, tolls, finance and upkeep. There was no system of through tolls on a uniform basis and despatch of goods by canals often required several sets of bookings. This hampered traffic. In spite of these drawbacks, the new means of transport proved most beneficial to Britain. Its bulky goods received a new mobility and there was a great reduction in the general cost of distribution, and especially of coal, food and building materials. People could now live away from the neighbourhood of woods and bogs. The centre of Britain was opened out and towns grew. The development of large farms and the agricultural revolution were stimulated, because agricultural produce could secure better markets. The textile industry took root in Lancashire. Small places like Liverpool developed into big ports. A considerable amount of trade was diverted from the coast to inland waterways, because coastal trade was irregular and unpunctual, on account of delays imposed by bad weather at sea. The waterways became arteries of goods traffic, passing from the North Sea to the Baltic and Germany. New classes of contractors, surveyors and navies emerged for building them and the docks, and their experience proved very valuable for building railways.

later on. Trade changed its character. Merchants travelling with goods carried on the backs of ponies, and selling them as they went on, were replaced by commercial travellers, who carried only samples and patterns, received orders from the retailers and supplied the goods by barges.

The canals rapidly declined in importance, when the railways came, with through traffic, through rates, speedy handling of large quantities of goods, punctuality and cartage and delivery at the terminals. The decline increased when traffic was diverted from the canals to the coastal steamers, which began to carry it in large quantities without the delays of the old sailing ships. Moreover, the railways acquired $1\frac{1}{3}$ of the canal mileage in Britain, in order to overcome the opposition of canal companies to railways bills in Parliament, and then diverted traffic from their own canals to themselves. Further, the canal companies made no efforts to meet the competition of the railways, by combining, standardising and improving their systems and by encouraging through traffic by means of through rates. Finally, English internal trade became so modified that railway transport suited it far better than canal transport. Thus, the English farmers replaced the sale of wheat by that of dairy produce, which required quick transport. The coal merchants preferred getting the coal in railway trucks, whenever they wanted it, to keeping it in large warehouses. Factory owners had the same preference regarding coal, builders, regarding building materials and so on.

On the Continent, inland waterways had a less unfavourable career than in England, chiefly on account of the help and encouragement given to them by the State. Germany started canal construction in the 16th century, but did not make much progress until the eighties of the 19th century. Then, the Government took up the matter and constructed many canals, several of which fulfilled strategic as well as economic purposes. The old canals were so rebuilt and the new ones so constructed, as to accommodate steamer traffic. The steamers carried goods more cheaply than the railways and could load or unload them at any place en route but they were slower, less punctual and had to stop during winter. At the same time, full advantage was taken of the extensive river system by the deepening of the river beds. The real reason for the popularity of the canals in Germany was that the railway rates were regarded as too high. The State encouraged canals, because they relieved the railways of the low grade bulky traffic and provided the cheap transport facilities that were necessary for mining, agriculture and even manufactures. The canal system of Germany, therefore, became an effective competitor of the railways. The greater vitality shown by the Continental inland water transport than by

that of England was due to the facts that it was mostly managed by the State and that the losses resulting from the management were borne by the tax-payers.

5. *Inland Waterways in India.* Nature has been much less favourable to India than to England as regards rivers suitable for transport. The Himalayan rivers are perennial, as they obtain an abundant supply of water, even during summer, from the melting of the Himalayan snows. The Indus and its tributaries, the Chenab and the Sutlej the Ganges, the Hooghly and the Brahmaputra are navigable by steamers throughout the year for hundreds of miles above their mouths, and were the arteries of commerce in the pre-railway era. The peninsular rivers, on the other hand flow in torrents during the monsoon but become almost puddles in deep gorges or rocky beds, or a vast expanse of sand during summer, making navigation impossible, e.g., the Narmada and the Tapti. The Mahanadi, the Godavari and the Kistna are navigable in their upper reaches, but the traffic on them was never large. Besides these, small rivers, creeks and backwaters along the coast provide facilities for transport, which are used by small boats.

Before the railways, all the navigable rivers were used to a considerable extent, and this was especially true of the Ganges. Inland navigation, however, received a check with the arrival of the railways, because in the absence of a Government department entrusted with the duty of looking after it, the vested interest of the railways prevented it from receiving even a small part of the attention, which was given to it in the Western countries, with great advantage. In fact, waterways suffered from the unfair competition of railways, e.g., the Buckingham Canal in Madras and the port of Broach in Bombay. Hence, navigation canals were few, the only important ones being the Ganges Canal between Hardwar and Kanpur and the Buckingham Canal.

The many irrigation canals were not suited to navigation, because they were shallow, roundabout in their course, and passed through thinly populated agricultural areas. During the seventies, eighties and nineties of the last century, when the railways did not pay their way, a few administrators took interest in preparing schemes of navigation canals, but the schemes were dropped on account of the opposition of the railway interests, and the large sums needed for them. With the turning of the century, the railways began to pay, and then no administrators took interest in the schemes, although there was appreciable scope for improving the waterways, adapting some of the irrigation canals to the requirements of navigation and co-ordinating all of them with the railways thereby providing

cheap transport to the bulky raw materials of India.⁴

6. *Railways in Britain.* The railway era commenced from 1830. In that year, George Stephenson's little engine the 'Rocket', prepared in England after numerous experiments conducted by many inventors, proved the technical as well as economic practicability of steam locomotion on the Liverpool and Manchester Railway.

The British railway system differed from other railway systems in several important respects. In other countries, Government built and worked or helped in building and working the railways. Some of the railways were built primarily for military and strategic reasons. There was no opposition to the railways, each system was carefully planned beforehand, and care was taken in most cases to avoid overcapitalization. The railways did not supersede the canals, built alongside them, and they supplemented each other. Finally, the railways had the advantage of long hauls. In England, on the other hand, the railways, like the roads and canals, were started by private enterprise and capital, on no uniform national system and without State help. The English railways were regarded not as boons, but as dangerous innovations, which had to be justified before elaborate Parliamentary enquiries. They were regarded as harmful to life and property, and, therefore things to be resisted. The railways had to pay heavily to overcome the opposition and to get the railway bills passed. All railway schemes required the sanction of Parliament. The chief object of the Parliamentary Committees, which examined the schemes, was to protect property rights from the railway companies. This attitude, combined with the feeling of the landowners in the early days that their estates would be ruined by this engine of destruction, compelled the railway companies to pay unduly large sums as compensation, and this was another cause of the high capitalization of the English railway system. A third cause was the great solidarity of construction to overcome the strong feeling that travelling by railways was dangerous to life. Finally, for the same reason, Parliament compelled the railways to instal the most up-to-date and costly safety devices, such as vacuum brakes and interlocking signals.

The English Parliament, believing blindly in the supreme merit of free competition for regulating facilities and prices, was shocked at the very idea of a railway monopoly and did its best to encourage competition among the railways and between the railways and the canals. The English railway system thus became a patch-work. Parliament failed to realise the necessity of using its powers to promote the laying out of a national railway system on a systematic plan. It made no attempts to map

⁴ See Jathar and Beri, *op cit.*, p. 215.

out the country into railways areas or to decide the distribution of the railways geographically. The companies were given full freedom to link up any centres and to make their routes take any direction that they chose. Parliament did not even compel the companies at first to adopt a single gauge, so that two gauges, broad and narrow, were used. After some years Parliament decided in favour of narrow gauge, but the broad gauge did not altogether disappear until the nineties.

Further, the English railways were built to carry an existing traffic, which had become too much for the canals. They were started entirely for commercial reasons and had no strategic objective. Furthermore, they superseded the canal system and were organised on the model of the canals, i.e., they carried trucks belonging to private persons who paid them only tolls and the haulage charge. A consignor or consignee could make his own arrangements for loading, unloading, collection, delivery and stations, and then the railway could not charge him for these services. In the interests of safety, private persons could not be permitted to use their own locomotives on the railway lines. The English railways were built for the transport of goods, and the great human mobility and the commercial revolution that resulted from them were not at all foreseen. Moreover, being a pioneer in railway construction and running, England had to conduct numerous experiments and made many mistakes. This involved a sinking of capital in ways that were avoided by other countries, which profited from England's experience. A substantial portion of the English railway system had to be rebuilt, so as to secure uniformity of gauge, before through traffic could be carried by it.

The first railway lines were constructed by small independent companies, but in a few years successive amalgamations began to be made, and large railway systems came into existence, in the interests of through traffic, economy and efficiency of working, financial success and convenience to the users of railways, in respect of trains connecting each other properly and fitting and using each other's stations.

Another factor which helped the amalgamations was the Clearing House, started in 1842 by the railway companies to provide for through traffic without rebooking, that had been the great evil of the canal system, by facilitating the sending of trucks from one system to another, classifying the goods, fixing the through rates, and adjusting the amount to be paid to each company for the portion of its line used in through traffic. This necessitated frequent meetings of the railway directors and managers at the Clearing House, and made them realise their common interests and the desirability of avoiding competition. These amalgamations tended to create a monopoly, and Parlia-

ment felt the need of controlling and checking them, especially as the monopoly was strengthened by the supersession of the canals by the railways, which offered through rates, punctuality and speed. But on account of the influence of the *laissez faire* doctrine on Parliament and the public mind, Parliament was unwilling to adopt detailed regulations of railway services, rates and fares and adopted half-measures, such as empowering the Board of Trade to exercise general supervision over the railways, establishing a tribunal to supervise amalgamations, and later creating the Board of Control for reviving the competition of the canals. These measures proved to be of little avail, and Parliament could not prevent the railways from coming together by means of working agreements, traffic pools and rate conferences.

This informal combination made the public suspicious that the railway companies were uniting to exploit it and the ideas of strict state control and even of the nationalisation of railways began to develop in the public mind from the seventies. This led in 1873 to the appointment of a Railway and Canal Commission, which was entrusted with the work of preventing combinations, reviving canals and hearing complaints regarding unfair discrimination in railway rates between individuals as well as areas.⁵ It was made permanent in 1888 and empowered to fix maximum rates. Accordingly, it issued schedules of rates, some of which were above and some below those, which were being charged by the companies. To compensate themselves for the losses from the reduction of some rates, the companies raised the other rates to the maximum. This caused great dissatisfaction among the traders. Parliament, therefore, passed a law in 1894, by which companies were not allowed to raise their former rates, unless an increase was proved to the Commission to be necessary on account of a rise in the cost of management. Thereafter, the companies did not care to experiment with the lowering of their rates, because they became afraid that they would find it very difficult later to persuade the Commission to sanction their increase to the former level. This removed the incentive to economy, and competition between the different companies in rates came to an end. Thus, Parliament abandoned its *laissez faire* attitude, but nationalization of railways was too much for it.

Throughout these years, the movement towards combination among the railway companies continued. In the early years of the new century, the cost of management of the companies increased and their profits fell on account of higher taxation, higher price of coal and competition to attract traffic by giving better facilities. This helped the combination movement. Parliament was annoyed at this, but did not do anything.

5 See Ogg., **Economic Development of Modern Europe**, p. 233.

7. *Railways in Germany.* The German economist, Frederick List, played a prominent part in encouraging the starting of railways in Germany in the thirties, and from the forties, railway construction made rapid progress. There were hardly any physical or economic difficulties, land was cheap, and the central German plain made the technical problems of railway construction simple. In Prussia, the State at first left railway construction to private capital, and merely guaranteed interest on the capital invested, wherever necessary. Later, it was compelled to construct and run some railways itself as companies did not come forward to do so. But in most of the other German states, the railways were owned and managed by the State from the beginning.

When the German Empire was established in 1871, there were many different railway lines and the Empire, far from being a railway unity, consisted of 63 railway provinces. Unification of the railways was necessary to enable Germany to hold her own, as an industrial nation and to strengthen the unity of the Empire.⁶ Bismark, therefore, proposed the imperialization of all the railways. But the States, other than Prussia, opposed the proposal successfully on the grounds that there would be excessive centralization, that the revenue from the railways would make the Empire financially independent of the constituent states, that the appointment of numerous railway officials would give the Imperial Government enormous patronage and so increase its political influence, and that the abolition of competition would be contrary to public interest. Their real reasons, however, were the fear of increasing the power of Prussia and the unwillingness to lose the right of making a large number of appointments and of giving out contracts.

Bismark, therefore, had to be satisfied with the more limited plan of establishing a State railway system in Prussia. He soon obtained possession, for the Prussian Government, of all the private railway lines in North Germany, even if they were outside Prussia. Thus, the Prussian Government practically controlled the entire railway system of Northern Germany. Its influence was so great that the Southern States, in spite of their independent railways, found it impossible to follow independent railway policies, and had to adjust them to the Prussian policy. The Railway Office was set up to secure co-ordination of the different railway systems. By controlling it, the Imperial Government could establish uniformity regarding rates and traffic conditions to such an extent that it was popularly believed that Germany had a single state railway system.⁷ The objects of

6 See Dawson, **Bismark and State Socialism**, pp. 73-4.

7 See Birnie, **op cit.**, p. 48 and Knowles, **Economic Development in the 19th Century**, p. 220.

nationalizing the railways were to assist agriculture and industries by granting low rates for the transport of raw materials and to assist German producers and manufacturers in competition with foreign rivals at home and abroad, so as to encourage exports and to discourage imports, by manipulating the railway rates.

8. *Railways in Russia.* The means of transport were very poor in Russia, until railways began to be built from the forties. Russia has a fine river system, and a few canals had been constructed to link up the rivers, but the rivers freeze in winter and are shallow in summer. A few roads were built, but the advantage from the flat nature of the country was more than offset by its lack of stone and gravel for road construction. The progress of railway constructing even was very slow until the Crimean War. But the great privations of the Russian armies during the War caused by the lack of transport, roused Government to the necessity of pushing on Railway construction, and a special organization called the General Company of Russian Railways was established after the War. Thereafter, the progress of railway construction was rapid. For over two decades, the right to construct railways was given to companies, Government guaranteeing a certain return on their capital and granting them certain concessions. But this policy eliminated the incentive to the companies for economy and efficiency. So, the railways were worked at a loss, and proved to be a heavy burden upon the tax-payers. Government, therefore under the leadership of Count Witte, took over a majority of the railways, as the agreements with the companies expired, and built new railways, and thus built up an Imperial railway system. Government also began to control the railway rates from 1889, through a special Tariff Committee, as competition regarding them had produced rate discrimination and other great abuses.

Many of the railways were constructed for strategic reasons, to carry armies quickly to the outlying parts of the Empire in Europe and Asia. But most of them came to have commercial and social importance also, as traders and settlers followed in the wake of the armies. Railways were constructed throughout Asia also, in the closing and the opening years of the old and new centuries. The most important of these was the Siberian Railway, built by the State, running 3,800 miles, connecting the Atlantic and Pacific Oceans and building up the Empire by opening new regions for trade and settlement. One of the objects of this railway expansion had been to build up a self-contained Empire, free from economic dependence upon Western Europe. But far from this object being achieved, the expansion made Russia dependent upon Western Europe more than before, because, not having its own capital, it had to borrow most of the capital required for the railways from Western

Europe, especially France, whose engineers also greatly influenced the construction. Further, the railways, being built in advance of commercial development, did not pay their way for many years and were a great burden upon the tax-payers, until almost the beginning of the First World War⁸.

9. *Railways in the U. S. A.* In the U. S. A., as in Russia many of the rivers froze in winter, the canals were inadequate and the roads were little developed. Hence, the need for railways was very great. The great expansion of the forties and fifties was largely due to the railways, which linked up the West with the East. Otherwise, on account of the mountains, the Middle States would have linked themselves up with the South. The railways traversed great distances, and made settlement away from the rivers and beyond the Mississippi practicable. They opened up new lands and settlers followed them. In the fourth and fifth decades, they were built in the Eastern States, and later West of the mountains. Their construction was greatly stimulated after the Civil War, and the first transcontinental railway was built soon afterwards. Early in the seventies, the replacement of the iron rails by steel ones enabled a great increase in the train loads and a great lowering in the cost of transport. Hence, in the South, cotton production, and in the far West, meat production on the ranches, and their export to world markets became possible. The railways in the U. S. A. did not, as in Europe, merely supply better trade channels. They also created now productive areas, such as the prairie area west of Mississippi, the pasture area of the mountains and the fruit plantation area of the Pacific coast. This development was necessary for a country that had to transport heavy goods over great distances in order to live. The transport of heavy goods, like minerals, cattle, wheat and cotton, was far more important than that of passengers, and the former gave the railways thrice as much revenue as the latter.

In the history of the American railways, there were alternating periods of excessive speculation and intense depression. The Federal Government not only did not impose any regulations on the railway companies regarding rates, building or safety, but also gave them large gifts of public lands, subsidies and exemptions from taxation, subscribed to their shares and guaranteed their bonds. Hence, railway companies multiplied as freely in the U. S. A. as factories in England, without much thought to proper construction or safe running. Many of the railways were built in unsettled areas, and the companies offered all sorts of concessions, to attract people to the areas and to make them settle there. The railways conquered the country economically, united it politically and in half a century made it

8 See Miller, **Economic Development of Russia**, p. 193.

one of the Great Powers of the world.

But there were periods of cut-throat competition among the companies, resulting in depression. There were other serious abuses also. The railway magnates collected big fortunes by means of anti-social methods, such as making or breaking towns, by supplying or withholding railway facilities, charging exorbitant rates, wherever there was monopoly, and resorting to unfair rate discrimination, when there was competition. There was great public outcry against these abuses. So, in 1887, the Federal Government established the Interstate Commerce Commission for controlling the railway rates, and prohibited discriminations and pooling agreements. As the railway companies and the powerful interests had benefited from rate discriminations, they obstructed the work of the Commission, which became notorious for inefficiency and delay. A number of Acts were, therefore, passed to remove these evils, to increase the powers of the Commission and to strengthen its administration. Thus an effective system of control and regulation by Government was gradually developed.

10. *Railways in Japan.* After the Meiji Restoration, it was decided to build railways for making the authority of the Central Government effective throughout the country stimulating agriculture, trade and industries and military purposes. But as private capital and enterprise did not come forward to undertake railway construction, Government carried it out itself, from 1872, with loans floated at first in London and afterwards at home, and with the help of English technicians. In 1881, private enterprise came forward and the Nihon Railway Company was formed. Government helped it with land and a guarantee of interest at 8 per cent, in return for control and the option of purchasing it at the end of a certain period. The success of this Company was followed by the creation of 15 others, under similar Government help, and in 1905, $2\frac{1}{3}$ of the railway mileage belonged to companies.

But the rapid development of the railways took place without proper planning, economy and uniformity of services. These defects became glaring during the War with Russia. Hence, at the end of it, Government purchased the railway lines from the companies and brought them under its own management. It then improved the service, reduced the charges and constructed additional trunk and strategic lines. It encouraged the construction of local and feeder lines by companies by means of subsidies. By 1914 the length of the trunk lines run by Government and of the local and feeder lines run by the companies were 8,400 and 1,300 kilometers respectively. A special feature of the railways in Japan was that the income from passenger traffic substantially exceeded that from goods traffic. This was explained

by the facts that Japan did not produce large quantities of raw materials and minerals and that much of the goods traffic was carried by coastal shipping on account of the existence of many good harbours and adequate shipping.

11. *Railways in India.* Railway construction began with the arrival in India, in 1848, of Lord Dalhousie, who had been connected with the railway administration in England and whose head was full of plans for the building of railway in India. In 1849, agreements were signed with the Great Indian Peninsula and East Indian Railway Companies, which were incorporated in England and given a guarantee of definite return by the East India Company. The first 20 miles of the G.I.P. line from Bombay to Thana was opened in 1853, the E. I. R. line from Calcutta to Raniganj in 1854, and the Madras line from Madras to Arkonam in 1856. In 1853, Lord Dalhousie wrote his famous minute on railways in India. In it, he advocated the construction of trunk lines to connect the interior of each Presidency with its chief port and to connect the Presidencies with each other. This would enable raw materials and foodstuffs, which India could supply and which England wanted, to be carried from the interior to the ports for export. It would also enable manufactured goods, which India wanted and England could supply, to be carried from the Indian ports, where they would be imported, into the interior, for distribution there. It would, further, enable the employment of a large amount of English capital and enterprise in Indian trade. Finally, it would confer upon India social and political advantages also. Lord Dalhousie's opinion, however, was that railways should be constructed and managed by private enterprise under the control of Government, because the construction and management of commercial concerns, like the railways, did not fall within the province of Government. A specific return on the private capital invested in the railways must, however, be guaranteed by Government, because otherwise capital would not be forthcoming for investment in risky undertakings, like the railways⁹.

This minute led to the creation of the so-called old Guarantee System of railway construction in India, and contracts were made with eight English Companies between 1854-60 for building and managing 5,000 miles of railways in different parts of India. The Indian Mutiny gave an additional stimulus to the development of railways in India by showing the great deficiencies of Indian transport for moving troops and materials. The contracts made with the eight guaranteed companies had the following provisions:—(1) Government guaranteed interest at rates varying between 4½ and 5 per cent, according to the conditions prevailing in the money market, when each contract was

⁹ See Jathar and Beri, *op. cit.* p. 166.

signed, and supplied the necessary land, free of cost, for 99 years, in return for which Government had the right of controlling the expenditure and operation of the companies. (2) Government had the right of purchasing the property of each company on the expiry of each period, of 25 years, of the contracts. (3) Surplus profits, above the guaranteed rate, were to be shared by the Government and the companies.

This guarantee system succeeded in attracting the necessary capital and enterprise from England, at a time when Indian capital was very shy, but it imposed a great financial burden on Government. The cost of construction was very heavy owing to the pioneering nature of the work, the physical difficulties, the difficulty of obtaining skilled labour and the necessity of importing all machinery and most of the materials from England.¹⁰ In addition, the Guarantee System discouraged economy in construction, because at the time there was no chance of securing profits above the guaranteed minimum. Hence, there was a large deficit every year in the working of the railways, and Government had to meet it at a time when its own financial position was very unsatisfactory. Hence, the Guarantee System became discredited. Its critics pointed out that England had accumulated far more capital than could be employed profitably at home, that the surplus capital was being invested even in non-Empire countries, such as those of South America, that it would have been available for railway development in India, even without any Government guarantee, that at any rate the rate of return guaranteed was excessive, as shown by the fact that, under the later and revised Guarantee System, Government was able to reduce the rate, and that as Government did not encourage the starting in India of the industries manufacturing the materials required for the railways, the cost of the construction and management of the railways with imported materials, was bound to remain high¹¹.

These considerations brought in the second period of railway development, from 1870 to 1880, during which it was decided not to enter into any new contracts with companies and to undertake direct Government construction and management. As the Secretary of State could raise loans in London, on behalf of the Indian Government, for productive purposes, on the security of Indian revenues, at not more than 4 per cent, there was definite economy in the acquisition of capital for the railways by this method. A smaller gauge, the metre gauge, was adopted for the new lines for the sake of economy and an energetic programme of new construction, at lower costs was pursued by Government.

¹⁰ See Anstey, *op. cit.* p. 131.

¹¹ See R. C. Dutt, **Economic History of India in the Victorian Age**, pp. 355 and 390.

But difficulties arose in connection with securing funds, adequately, for the larger commitments that became necessary. Frontier wars with Afghanistan and famines made the reconstruction of some of the Indus Valley and Punjab railways from the metre to the broad gauge, at heavy cost, necessary for carrying heavy traffic satisfactorily. Then, the Famine Commission of 1880 recommended that additional 5,000 miles of railway construction, making the total mileage 20,000, were urgently required to protect India from further threats of serious famines. At the same time, on the one hand, the Frontier Wars and famines impaired the credit of Government, and on the other, the heavy and progressive fall in the gold value of the rupee, on account of the appreciation of gold relatively to silver, increased progressively the burden of the interest which Government had to pay annually on the loans raised in London and of other payments in England.

Government, therefore, in 1880 returned to the policy of encouraging private companies to construct railways by giving them financial assistance, but the provisions of the New Guarantee System were made less exacting for Government. Henceforth, direct Government construction was to be confined to the lines required for military purposes or for famine prevention or relief. The provisions of the new system were as follows:—(1) The lines constructed by the new companies were to be the property of Government from the beginning and Government could terminate the contracts with them at the end of 25 years, or at following intervals of 10 years, and repay them their capital at par. (2) The guaranteed return was reduced to $3\frac{1}{2}$ per cent. (3) $3\frac{1}{5}$ of the surplus profits were to go to Government. Accordingly, several new companies were started.

When the 25 years' contracts with the old guaranteed companies expired, Government bought the lines from them. Government then managed some of the lines itself, but handed back the management of others to the old companies, under new contracts, by which a certain remuneration was guaranteed to the companies. Again, when the contracts with the new guaranteed companies expired, Government made new contracts with them, for the management of lines under more favourable terms, such as a reduction in the companies' share of capital and in the rate or return guaranteed and an increase in Government's share in the surplus profits. Further, branch line companies were established and Indian States were encouraged to construct railways in their territories.¹²

A very complicated system thus came into existence. Some lines were State owned and State managed, some were State owned but managed by companies under the Government gua-

12 See Jathar and Beri, *op. cit.* p. 169.

rantee, some were owned by companies but managed either by them, or by the State lines, or by other companies managing lines in the neighbourhood. In the Indian States, the lines were constructed and owned by the rulers of their Governments and managed either by them or by the State lines or by companies managing lines in the vicinity. In 1900, there were as many as 33 separate administrative bodies managing railways in India.

By 1900 most of India's main railway system, comprising 25,000 miles, was in operation. During 1900-14 nearly 10,000 more miles were constructed, consisting mostly of links between the main lines, and branch and feeder lines. This rapid expansion was a part of the new and energetic policy of the economic development of the country. In 1905, the railway Branch of the Public Works Department of the Government of India was replaced by a Railway Board, consisting of a president and two members, in the Department of Commerce and Industry, as the head of the railway system in India. In 1908, the Mackay Committee on Railway Finance recommended that the annual capital expenditure on the railways should be raised to £12½ millions. Although Government was not able to give full effect to this recommendation, larger sums than before were spent on the railways.

In spite of the developments mentioned above, up to 1900 Government had to bear an annual net deficit on the lines under its control, on account of the extravagant construction and management by the old guarantee companies, the construction of lines for strategic purposes and for famine prevention and relief, and the inadequacy of traffic in the less developed regions. The total losses of the State, during this period of 40 years from the inception of the railways, amounted to Rs. 58 crores. But, with the commencement of the new century, Government began to obtain a substantial net profit every year, except in 1908-9, a year of famine and depression. The profit was due to the general economic development of the country, specially of the Punjab and Sind by means of irrigation works, which enabled the Frontier Railway to pay for itself, and to the more favourable terms of the new contracts with the companies.

Thus, although the majority of the Indian railways were constructed and managed by companies, Government controlled both construction and management. Later, even when they continued to be managed by companies, they came to be owned by Government. The lines under direct Government management were worked as Government departments. The Secretary of State had full and final control over the railways managed by the companies under contract with Government, and appointed one of the directors of each company, with the power of veto, and an official consulting engineer, who had to give information or advice to the Secretary of State, when required. In India,

the Government of India, subject to the authority of the Secretary of State and within the terms of the contracts, had the power to control, through its Railway Department, the management and expenditure of the companies, but had no power to appoint or dismiss their employees. The companies were managed by their boards of directors in England, represented in India by an agent or a general manager, helped by a consulting engineer, who was frequently the same as the Government consulting engineer. But all expenditure needed the previous sanction of Government, and no well-conceived and co-ordinated programme of railway improvement and expansion, spread over a number of years, could be undertaken, because the railway budget being a part of the general budget of Government, the amount available for carrying out the railway programme depended, not upon the railway requirements of the country, but upon the general financial position¹³. To remove these defects and to introduce a greater elasticity, several investigation were conducted, but led to no important reform; except the creation of the Railway Board in 1905, as mentioned above. But the Board could not improve matters much and could not reduce delay and promote efficiency to any extent.

12. *Shipping in Britain.* A number of Navigation Acts beginning from the end of the 14th century had been passed in England to encourage the development of English shipping. By these Acts, trade between England and her colonies was reserved for English and Colonial ships; the coasting trade was reserved for English ships; in the European trade, certain commodities could be brought to England in English ships only, while other commodities could be brought in foreign ships, but were subjected to higher import duties; some colonial goods, such as sugar and tobacco, had to be brought to England for distribution, and to make English ships perform distant voyages, goods of non-European origin could not be brought to England from a European country. Consequently, the British shipping went on increasing steadily. The French Revolutionary and Napoleonic Wars destroyed the French and Dutch shipping, but the British shipping survived, the losses being more than offset by increased shipbuilding. The War 1812 destroyed the shipping of the U.S.A. also. Hence, Britain emerged from the Wars without a rival, gradually relaxed the Navigation Acts, and abolished them completely by the middle of the 19th century.¹⁴

This abolition was followed by a revolution in sea transport in which Britain was again the pioneer. Although wooden ships propelled by steam were developed and almost simultaneously in England and the U.S.A., the former was the first to

13 See Anstey, *op. cit.* p. 135.

14 See Knowles, **Industrial and Commercial Revolution**, p. 298.

develop the iron steamer propelled by steam. Its abundant supplies of coal and iron and great capacity for manufacturing iron gave it the lead in shipbuilding and the carrying trade. But steamers for a considerable time suffered the disadvantage of small space for cargo or passengers, as the early marine engines consumed a lot of coal, which took up most of the space for long voyages. The freights and fares charged by the steamers had, therefore, to be high, and sailing ships had an advantage over them, especially for long voyages. Hence, up to 1870, the mercantile marine of England and other countries consisted largely of sailing ships.

From 1870, steamers gradually increased in importance owing to the following factors:—(1) The opening of the Suez Canal gave a great stimulus to steamers, as sailing ships cannot navigate it. (2) The economy of fuel was secured by the invention first of the compound marine and then of the triple and quadruple expansion engine, which also took up less space and had less weight. There was, thus, double saving of space. (3) Coaling stations were established along the chief routes, where steamers could replenish their stock of coal. (4) The greatest economy of space was secured by the invention of the Diesel oil engine, because one ton of oil could do the work of 5 tons of coal. Moreover, oil could be easily stored, required no big steam boilers, and needed less than half the number of stokers. Its high price alone prevented it from taking the place of coal completely as fuel for steamers. (5) The capacity of steamers to carry cargo was increased further by making them of steel, which was lighter than iron. Hence the displacement of a steel steamer was less, and more cargo could be stowed into it before the load line was reached. Further, a steel steamer was cheaper in the long run, because its life was much longer. (6) The economy of labour in working steamers was secured partly by adopting mechanical appliances and partly by adopting mechanical appliances and partly by constructing larger and larger steamers, as fewer men in proportion were needed to run them.

These developments led to the almost complete disappearance of sailing ships from the high seas and the specialisation of steamers into liners and tramps. The liners had regular routes and scheduled journeys and carried passengers, mails and goods requiring speedy transport, between important ports regularly, punctually and swiftly, according to definite timetables. This led to a concentration of capital in the shipping industry and the formation of large steamship companies possessing fleets of liners, such as the Peninsular and Oriental, the Cunard, the Austrian Lloyd, the Hamburg-America, the North German Lloyd and the French Messageries Maritimes.¹⁵ The

15 See Birnie, *op. cit.* p. 50.

tramps explored fresh fields and liners followed, if sufficient trade developed in a particular field. Before the First World War, 60 per cent of the British shipping consisted of tramps, and the remaining of liners. A further specialisation came with the construction of steamers for carrying frozen meat and the tank steamers for carrying oil.

In the course of these developments, Britain achieved supremacy in shipbuilding and the carrying trade. Before the First World War the annual production of its shipyards was greater than that of all the other shipyards taken together. Its mercantile marine was also the largest being nearly $\frac{1}{2}$ of the world's steam tonnage and 4 times as large as the next largest mercantile marine, *viz.*, that of Germany. It was also more up-to-date and efficient than the others, because Britain went on selling its old ships to other countries and replacing them with newer and larger ones.

Britain also achieved a dominant position as a carrier and became the pivot of the ocean trade of the world owing to several favourable factors. Firstly, it became the industrial centre of a far-flung Empire and began to obtain food and raw materials from all parts of the world. Secondly, its enormous coal resources supplied outward cargoes for many of its ships, which would otherwise have had to go out empty and supplied bunker coal to many ships conducting foreign trade. Finally, it had coaling stations spread over the world, suited to its ships, and had established lines of connection, which its newer rivals could not cut. Before the First World War, 40 per cent of the world's ocean trade was carried by Britain and over 50 per cent by British ships. The greater part of the trade was with countries outside Europe. All this enabled British shipowners to lay down the trade routes in such a manner that their ships could get full cargoes, during all parts of their voyages. All this progress was made through individuals and joint-stock companies, which mobilised the capital of individuals, and no government assistance was given except subsidies in a small number of cases, for carrying mails, *i.e.*, for services rendered.

13. *Shipping in the U. S. A.* During the earlier part of the French Revolutionary and Napoleonic Wars the shipping of the U. S. A. prospered a great deal, but it received a setback from the Embargo and Non-Intercourse Acts and the War of 1812, and the depression continued until 1840. Between 1840 and 1860, the shipping prospered again owing to the expansion of the trade of the U. S. A. and the world, and the perfection of the construction of fast sailing ships called clippers by American shipbuilders who made good use of the abundant local supply of timber. But the shipping declined once more, partly owing to the Civil War, and partly owing to the change from wood to

iron, and later to steel, as the building material for ships. This change gave Britain a great advantage over the U. S. A. The decline was also ascribed to the duties on shipbuilding materials, the absence of Navigation Acts, the lack of protection to the shipbuilding industry, the English skill in iron working and shipbuilding, and the continuous progress in the methods of construction used by the English shipyards. Americans found the cost of constructing ships much higher in the U. S. A. than in Britain, and employed their capital in other industries, so that before the First World War, American shipping carried less than $1\frac{1}{10}$ of the foreign trade of the U. S. A. and Britain remained dominant on the high seas.

14. *Shipping of Continental Countries.* From the eighties, on account of the growth of nationalism resulting from the Franco-Prussian War, several countries, notably Germany, Italy, Japan and Russia began to stimulate the development of their national shipping in order to be less dependent on Britain, by means of subsidies for carrying the mails, but in excess of the services rendered, bounties on construction, special railway rates for carrying shipbuilding materials, free import of such materials, reservation of the coastal trade to national ships, payment of Suez Canal dues, loans to shipowners, exempting them from taxation, refund of port dues, etc.

The development of the German mercantile marine especially was remarkable, and it became an important rival of the British mercantile marine. The concentration of Germany's trade in a very few ports, chiefly Hamburg and Bremen assuring full cargo to ships touching these ports, and the balancing in tonnage of Germany's imports and exports, assuring freight both ways, proved very valuable to the German mercantile marine. Moreover, the development of Germany's iron and steel industry supplied the material for shipbuilding, and the railways carried it to the ports at specially low rates. Again railways charged specially low rates for carrying goods, going out of the country in German ships. Finally, postal subsidies, amounting to bounties, were given to shipping services operating between Germany and Australia, Eastern Asia, Eastern Africa and the Levant. German shipping also proved very successful in the Atlantic trade by securing emigrant traffic through control stations, which imposed special restrictions on traffic using the ships of Britain and other countries. As the bulk of the cost of the German liners was provided by the emigrants, the liners could carry goods at specially low rates, and these rates greatly stimulated German export trade with North and South America. Further, German steamship companies supported each other against foreign companies, and exerted their united weight against the latter. The result of the development of the mercantile marines of Germany and other countries was that, al-

though the volume of trade carried by the British mercantile marine went on increasing, the proportion of the world's trade carried by it went on falling.¹⁶

15. *Shipping Conferences.* In the eighties, a severe slump in shipping was brought about by excessive tonnage, resulting from the shortening of the route through the Suez canal to India, greater effectiveness and quicker voyages of steamers, rapid construction of more steel steamers under the influence of subsidies and fitting them with more and more efficient engines. Hence, there were cut-throat competition and a heavy reduction in rates, and shipping became unprofitable. This led to the formation of shipping rings or conferences, i.e., combination for stabilising rates. Each conference operated its monopoly by means of the deferred rebate system. In it, the members fixed the rates of charges, and gave a refund of 10 per cent of the freight charges paid by the shippers, if they continued to confine their shipments to ships belonging to the members of the conference. The payment was deferred to six months after it had become due, in respect of a previous period of six months, so that the cycle went on and the shippers could never go to the competing shipowners. The conferences also arrived at understandings or agreements for not interfering with each other's spheres of operations.

The conferences were formed chiefly by the British shipowners. When the competition of German shipowners became severe, British owners entered into conference agreements with them, and it was decided to reserve the trade of Britain for the British shipowners and that of Germany, Holland and Belgium for the German owners. The latter, however, carried out the agreements only to the extent that it paid them to do so. The British owners tolerated this evasion, because the alternative was a ruinous rate war. The advantages to the public claimed from the conferences were regular sailings, stable rates of freights, avoidance of the wastes of rate wars, and lower rates on the average, on account of better steamers and more economical management, made possible by stable rates. On the other hand, it was urged that the conferences penalised the export of British goods, stimulated that of foreign goods and neutralized the colonial preference system, by charging lower rates for carrying goods from the European Continent of the U. S. A. than from Britain. The conferences stated that they had to do this to overcome the competition of foreign companies.¹⁷

16. *Shipping in Japan.* For a couple of centuries before Meiji Restoration, the construction of ships larger than 100 tons

16 See Knowles, **op. cit.** p. 307.

17 See Knowles, **op. cit.** p. 310.

had been forbidden, in order to prevent Japan from establishing touch with other countries. But the visits of foreigners to Japan in the middle of the 19th century showed the weakness of Japan in sea power and the necessity of developing the shipbuilding industry and a mercantile marine for the sake of the defence and foreign trade of the country. Hence, in 1853 the Shogun gave permission for the construction of ships of over 100 tons, established a shipyard and a navigation school, and encouraged the construction of ships of the modern type. The Meiji Government continued this policy and constructed two more shipyards, but owing to the shortage of technical experts and materials, large ships and even moderate sized ships could not be constructed, and the Japanese mercantile marine had to depend chiefly upon the purchase of ships built in other countries. To encourage the development of mercantile marine, the Mercantile Marine Law was passed in 1870 for the grant of subsidies, and during the next twenty years several companies were started, some of which formed amalgamations. The largest company was the Nippon Yushen Kaisha (the Japanese Mail Steamship Company), whose ships went beyond China and Korea. The growth of the mercantile marine was stimulated also by wars and the expansion of Japan's foreign trade.

The Sino-Japanese War exposed the slow progress of the shipbuilding industry. In 1896, therefore, the Shipbuilding Encouragement Law was passed for the grant of bounties on iron and steel ships of over 700 tons, built in the shipyards of Japan. This led to the construction of a number of shipyards and greatly stimulated the shipbuilding industry. The Shipping Subsidy Law of the same year provided for the grant of a subsidy for every steel ship of over 1000 tons owned by a Japanese ship-owner. Under this stimulus, a number of companies began to run steamers to various Western and Eastern countries. The Russo-Japanese War stimulated the mercantile marine as well as the shipbuilding industry further. To reduce the heavy burden of the subsidy, the law of 1909 restricted it to steamers of over 3000 tons, less than 15 years old and going to Europe, North America or Australia. In 1914, Japan possessed 3,300 steamers with a tonnage of over 1½ millions.

17. *Shipping in India.* Although India does not possess the same advantages as Britain, in respect of an indented coastline and natural harbours, she occupies an important maritime position and can become one of the principal carriers of the world, on account of her extensive coastline of over 4000 miles and central position in Eastern Hemisphere. In fact, until the beginning of the 19th century, India was an important sea-faring country and had a considerable mercantile marine and flourishing shipbuilding industry. Wooden ships built in India were at least as good as those built in Britain, and most of the commerce of

the Indian seas was carried in them. When the iron and steel ships became the principal means of ocean transport, especially after the opening of the Suez Canal in 1869, plentiful supplies of excellent timber for shipbuilding ceased to be an advantage to India. This, combined with the rapid improvement in naval architecture, the mechanization of ocean transport, the opposition of British shipowners and the application of the British Navigation Acts to India gradually brought about a heavy decline in Indian shipping.

Hence, India's foreign trade became more and more concentrated in the hands of British ships and shippers. Indian builders of wooden sailing craft could compete with non-Indian shipbuilders only in small vessels, the cost of bringing which to India in proportion to their price was high. Such vessels were used for the coastal trade only. There were no yards in India for building large ships, and the few yards that existed for repairing them were in the hands of non-Indians. At the end of the 19th and the beginning of the 20th centuries, only 12 per cent of the coast trade and 2 per cent of the foreign trade were carried in ships built in India. As regards the coastal trade, the partial monopoly secured by the British steamship companies, paid large dividends by charging high freight rates, the burden of which had to be ultimately borne by the Indian consumers.¹⁸ Moreover, these rates penalised Indian industries, as lower rates were charged for carrying raw materials from India to other countries and goods from them to India. But the greatest evil of the conference was that it suppressed Indian shipping concerns by adopting the deferred rebate system and conducting rate wars, lowering the rates drastically until the Indian rivals were wiped out and then recouping the losses of its members by raising the rates to high levels.

Government, far from giving any assistance to Indian concerns, took no steps to check these methods of unfair competition. The British companies, on the other hand, not only held a supreme position, but, in addition, received Government support in the shape of mail subsidies and the carriage of Government stores. Finally, it was alleged that Indian shipping concerns were handicapped by the attitude of European insurance companies, which placed in the second class ships belonging to these concerns, although they were regarded as first class by experts in London, and charged higher premiums for insuring them. The result was that most of the concerns had to be wound up and the efforts of Indians to enter this remunerative field ended in disaster. Other evils of the domination of foreign shipping companies were stated to be that deck passengers were always

18 See Jathar and Beri, *op. cit.* Vol. II, p. 215.

overcrowded in coastal steamers, that their ordinary comforts even were ignored, that Indians were given no facilities for qualifying themselves as executive officers and engineers of the ships and that they were not appointed to these posts.

At the end of the 19th century and the beginning of the 20th, the number of ships entering Indian ports declined, but their size and total tonnage increased. Moreover, the percentage of the total trade carried by British ships declined, on account of the growing competition of German and Austrian ships. French, Italian and Norwegian ships also took part in the trade.¹⁹

19 See Anstey, *op. cit.* p. 152.

CHAPTER VIII

THE COMMERCIAL REVOLUTION

1. *The Commercial Revolution was the Result of the Transport Revolution.* This Revolution was the result of the development of railways and steamships, which introduced some entirely new and vital factors into the economic life of nations, such as speed, safety, regularity and cheap transport of bulky and heavy goods in large quantities over great distances. Moreover, railways reduced such geographical limitations as mountains, climate and the lack of water communications. The credit of transport inventions also went to England and in this case also, her new technique helped man to control the forces of nature, which had formerly kept him in subjection, and influenced deeply the economic life of herself and other nations. The new mobility of goods and persons had a revolutionary effect, and a world economy took the place of national economy. Nations could no longer live in isolation from each other, and became linked together into a common economic system. Nations expanded into great land or sea empires, each owning or financially controlling large parts of the world. Germany, Russia and the U. S. A. were made into great empires by their railways. The growth of the British Empire was due to the development of railways and steamship. The introduction of world economy meant the introduction of world production, world distribution, world interdependence and world rivalry. These changes became effective from the seventies of the 19th century, because by that time the means of communication were revolutionized in England, France, Germany and the U. S. A. by railways and steamships and this happened in Russia, Japan and India a little later.

Before the railway era, new countries could not be settled up inland, on account of the difficulties of carrying bulky or heavy goods along unmetalled roads or rivers that froze or were flooded, or went dry or had shallows and shifting sand bank.¹ Hence, overseas settlements were restricted to islands or coasts, e.g., the American colonies of England and Spain and the African and Indian settlements of Holland, Portugal, England and France. The interiors of Africa, North and South America and Australia were undeveloped. When railways were

¹ See Knowles, **Industrial and Commercial Revolution in Great Britain**, p. 185.

built up in the interior, people could settle not only inland, but also away from the rivers, and develop the interior of continents. Thus, in the interior of North and South America, they began to produce large quantities of wheat, maize and cattle, which were carried cheaply by the railways to the coast and thence by steamers, also cheaply, to Europe. These large exports to Europe were made practicable only by cheap transport. Before the railway era, it did not pay to carry grain even from one country of Europe to another, except in periods of scarcity. Transport charges were reduced further, when iron rails were replaced by steel rails and when steel was used for making the railway rolling stock, as steel is lighter and yet more durable than iron. Hence larger waggons and more powerful engines could be used and heavier train loads could be carried.

The railways enabled the penetration of the interior of the African continent also. This was not possible before, as the rivers from the interior, which is a great plateau, flow to the sea over rapids, and as the only means of transport was man, on account of the fact that the tsetse fly is fatal to beasts. The labour released from portage by railways could be used for the development of agriculture, e.g., cotton in Uganda and cocoa in West Africa. Hence, a great colonial rivalry began among the great powers from the eighties for the possession of African territories. The Siberian railway opened up the Northern, and the Transcaucasian railway the central region of Asia. The railways linked up the interior of India with the ports, carried increasing quantities of agricultural produce from the interior to the ports for export and of imported manufactured goods in the opposite direction, so that the volume of exports and imports went on increasing, reduced the danger of famines and checked caste restrictions and isolation. By opening up the Middle East, with its rich oil-fields, the Baghdad railway made that part of the world another centre for the rivalry of the Great Powers.² After the opening of the Suez canal in 1869, steamships linked up Western Europe with India, China and Japan very effectively, and developed commerce between them.

Another effect of these transport developments was a change in the main trade routes. Until then, communication between the different parts of Europe had been maintained mostly by sea, and England owing to the advantage of its sea communications, had enjoyed almost a monopoly of the carriage of goods from Northern Europe to the Mediterranean, and London had held the position of the chief distributing centre for the European trade. Amsterdam and Antwerp had held a similar position, to a smaller extent. But the railways deprived sea communications of many of its advantage, and brought about an

² See Knowles, *op. cit.* p. 187.

increasing transfer of European trade to land routes. This decreasing transfer of European trade to land routes. This deprived England of the monopoly of its carrying trade and adversely affected London's position as a distributing centre.

Owing to its central position, Germany was fitted to become a distributing country for Europe, and much of London's entrepot trade passed on to a number of German towns. This alteration of trade routes was one of the causes of the rise of Germany to economic importance in the closing decades of the 19th century. Its economic development after 1870 was largely the result of the railway construction in Europe. Until then, it had been handicapped by a short coast, a flow of its rivers to the north and the freezing of its canals in winter. On account of the railways, it obtained new outlets to the East, West and South, throughout the year. The railway over the St. Gotthard gave it economic power in Northern Italy and the Mediterranean, with Genoa as an important outlet. The railway to Constantinople gave it economic power and commercial interests in the Balkans and the Levant. Railways connected it with France and Russia. Railways brought the iron of Lorraine to the coalfields of Westphalia, so that the German output of iron and steel increased rapidly, and the German iron and steel textile industries became rivals of those of Britain. The railways, thus, made Germany one of the Great Economic Powers of the world.

Finally, railways proved to be a great unifying force for Germany after 1870. They prevented the separation of South Germany from Prussia in spite of differences of character, religion and history. Bavaria and Wurtemburg, which were cut off from the South by the mountains, obtained access to the North or to the other parts of Germany only through the Prussian railways, which served as a powerful economic and political lever for Prussia. The railways rendered similar valuable services to Russia, for which the freezing of ports and rivers during winter and the lack of roads had been great obstacles. The railways enabled it to communicate with all parts of its vast Empire in Europe and Asia throughout the year, and this unifying force alone enabled it to be governed as a whole. Their other services have been explained in the previous chapter.

The emergence of the U. S. A. as a Great Power, politically and commercially, was also due largely to the development of steamships and railways. The natural tendency of its trade was to follow the rivers, north and south, from the big central regions. The current, however, was so powerful that boats required several months to work up against it. But steamers could do so in a short time, and when their number increased, a revolution took place in the trade of the central region, and the West could feed the people of the growing cotton plantations of the South. Then the Civil War gave great impetus to railway construction and thenceforward "the history of the railroads be-

came the history of the country". The railways facilitated immigration and settlement in the interior and the development of the interior, linked up the Eastern and Western sides of the country, and with their low transport charges, enabled grain and meat to be transported to the ports, for export to Europe. In the eighties, the export was stimulated further by a drastic lowering of the transport charges that resulted from excessive competition among the railways, some of which had been built for speculation. This led to the amalgamation of the railways in the nineties, but far from raising the rates, they lowered them further on account of greater efficiency, adoption of up-to-date equipment, and larger train loads.

The U.S.A. became the largest producer of steel in the world, as a result of the railways connecting the iron ores of Lake Superior with the bituminous coal of Pittsburg. Finally, the railways unified the North, South East and West and made the government of the U.S.A. as a whole possible. The railways brought about political stability among territorial units by establishing an economic interdependence among them. However, there must be a network of railways in a country, bearing a proper proportion to the area of the country, and there must be adequate working arrangements among the railways, for moving goods cheaply and rapidly over all the lines. The growth of the British Empire in the 19th century was also the result of railways and steamships. The development of its different parts even owed much to railways. Thus, the Union of South Africa was the result of a railway conference. Canada became an integral part of the Empire only after railways had opened up the prairie area and turned the trade East and West by connecting Vancouver and Quebec, whereas formerly Canada had been dependent on the U.S.A., on account of the movement of its trade North to South.

2. *Britain's Superiority as a Carrier and Empire-builder.* As Britain was the pioneer in railway and steamship construction, between 1850 and 1870, it temporarily obtained an advantage over other countries in bringing in raw materials, manufacturing goods in large quantities and sending them out quickly. But when railways and steamships developed in other countries after 1870, Germany and the U.S.A. became its industrial and agricultural rivals. It was, therefore, compelled to alter its economic basis, and came to depend upon importing food and paying for it, by exporting superior manufactures and coal and by means of shipping and financial services. It left the manufacture of cheap goods to Germany and the U.S.A. It, therefore, lost its position as the workshop of the world, but with its new steamships, it retained its position as the carrier of the world and established a new industry, viz., iron and steel ship-building.³

3 See Knowles, *op. cit.* p. 193.

Until the fifties, with its wooden ships, the U.S.A. carried a large part of all the trade to and from English ports. But with the advent of the iron steamer, the abundance of timber ceased to be an advantage to its shipbuilding industry. It did not have the new raw materials in a convenient position and lacked skilled engineers. Its mercantile marine, therefore, as mentioned before, declined. On the other hand, Britain had its coal and iron fields very near the coast and skilled engineers, and left all rivals far behind both as a carrier and a shipbuilder. It was helped in this by inventions and changes. The compound engine, by reducing the consumption of coal, made it possible for steamers to carry goods economically, whereas formerly they carried mostly passengers and mails. Then the opening of the Suez canal quickened the process of replacing sailing vessels by steamers, because the former could not pass through the canal without being towed. Further, liners with regular routes and scheduled sailings, were created as a complement to the railway trains, with their scheduled journeys on definite routes, while the tramp steamers went anywhere and at any time. Finally, in the eighties steel replaced iron for building steamers. Hence, up to the First World War Britain carried more than half of the sea-borne trade of the world and had built 2/3 of the ships.

The development made the British Empire possible, because swift communications by steamers and cables unified the different parts of the Empire in the same way as the railways and telegraphs did in Germany, Russia and the U.S.A. Freights were kept lower and the communications quickened between Britain and the Dominions, and between the Dominions themselves, than between the Dominions and countries outside the Empire, in order to enable trade to follow Imperial channels and to increase the strength and unity of the Empire.

The railways also played an important part in building up the Empire. They enabled its expansion from the islands and the coastal belts into the interior of Continents, and Nigeria, Rhodesia, Uganda, the prairie region of Canada, the Sudan, the interior of Australia, etc., were developed as parts of the Empire.⁴ The wheat of Canada, the wool of Australia, the jute of India, the rubber of West Africa and Malay Peninsula, the gold of South Africa, the cotton of Egypt and Uganda, etc. were produced in large quantities for the Empire, and particularly for Britain and its factories, and India, the Dominions and the colonies became the best markets for British goods. All this showed the economic interdependence between the different parts of the Empire.

3. *Rivalries among Nations and International Combinations of Capitalists.* While the railways and steamships created

4 See Knowles, *op. cit.* p. 196.

new industrial countries, they also created new industrial rivalries and political struggles for the acquisition of colonies and spheres of influence, from which raw materials could be obtained cheaply and abundantly, and to which manufactured goods could be supplied. These rivalries and struggles resulted in the First World War. On the other hand, international combinations of capitalists were created across these national rivalries, to avoid competition and some of their activities proved harmful to the world as a whole.

4. *Revolution in Commercial Staples.* The railways and steamships also caused a revolution in commercial staples and commercial organization. Formerly, the staples were small in number and such as could be carried by pack animals, carts, river and canal boats dragged by horses and sailing ships. Their number now went on increasing and their general character changed, because they were meant for world distribution, world sale and world markets, at world prices, on account of the speed and regularity with which they could be carried from one part of the world to another. In the 15th and 16th centuries, international trade was chiefly in spices, in the 17th and 18th centuries in colonial products such as tea, coffee, sugar and tobacco, and in the 19th century in bulky commodities, which it did not pay previously to carry, such as, wheat, barley, maize, raw cotton, cotton seed, petroleum oil, wood pulp, iron ore, coal, pyrites for sulphur, phosphate of lime, machinery, manufactured goods and tinned food and also in perishable goods, such as meat, dairy produce, eggs and fruits, for which quick transport was necessary. The place of luxuries, meant to supply the wants of the rich, was increasingly taken in international commerce, by articles of popular consumption obtained from all parts of the world to meet the needs of the poor.

The entire world being laid under contribution in the 19th century, and food prices falling rapidly after 1870, the peoples of the Western countries enjoyed a more varied diet, and their general standard of life also rose to a remarkable extent.⁵ Moreover, the world came to enjoy what it never had before, viz., security of life provided by an insurance against famines, because each country had the rest of the world to draw upon for food. A country like Britain could henceforth keep only small stocks of food and import food regularly throughout the year from different countries, in which harvests were gathered at different times of the year. At the end of the 19th century, Britain obtained most of its food supply from abroad, and three-fourths of it from such distant countries as Canada, the U.S.A. and Argentina.

Moreover, the establishment of corn exchanges in telegra-

5 See Knowles, *op. cit.* p. 200.

phic touch with each other removed the differences of prices that had prevailed before, not only in different countries, but also in different districts of the same country. Whereas previously, prices of wheat varied greatly at places in Britain 100 miles distant from each other, the same prices were now quoted in the corn exchanges of London and Chicago. Thus, international commerce began to wield the world slowly into a single economic unit and to present a strong unifying influence in opposition to the disruptive forces of narrow nationalism. Although in some respects it promoted national rivalries and strengthened these disruptive forces, which led to the First World War, there is no doubt that it has been a great civilising influence in modern world history and that it has been the most powerful force in favour of international unity. Coal, iron and steel became important commercial staples, because they were needed not only for machinery, but also for the construction and renewal of railways and steamships. Rapid changes went on in the technique of railways especially, and increasing quantities of coal and iron were needed to carry them out.

Further railways and steamships created greater freedom from accidents and greater security of transport from highway robbery and piracy respectively, which had been great curses of commerce until the 19th century. Highwaymen found it far more difficult to hold up a railway train than a coach. A pirate required very large capital to equip his ship, to make it capable of overtaking a steamship, and found it very difficult to obtain coal for his ship and to dispose of the looted cargo.

5. *Revolution in Commercial Organization.* Railways and steamships created a revolution not only in the staples of commerce, but also in the methods and organization of commerce and business. Traders reduced their stocks greatly, because they could now obtain goods quickly and with certainty. Hence, they required less warehousing space and less credit from their bankers. So, smaller men could now make a start in trade. This factor affected nations also. Formerly, Britain was the great entrepot, and kept large stores of goods for distribution in Europe. This was no longer necessary, because goods could be cabled, far from the countries of production, and sent directly and quickly to the countries that needed them. Again, a large number of retail shops was established, as they could obtain their stores daily from the manufacturers by a railway or steamer. So, householders no longer found it necessary to purchase stocks at the annual or bi-annual fairs, which gradually disappeared. The fairs of Britain and France disappeared first, and those of Germany, Russia and other countries followed.

While the railways revolutionized the methods of inland and retail trade, steamships, with the help of cables, revolutionized those of foreign trade. Formerly, the exporter sent his

goods in his own ship, and as he could not know the state of the market, when the goods reached their destination after a long time, he had to sell them for whatever prices they fetched. His trading was, therefore, a gamble to a considerable extent. But now goods could be cabled for and received quickly. Hence, the importer took the place of the exporter, as the deciding factor. He placed orders and obtained goods quickly, as he needed them, the goods were carried by common carriers for mixed cargoes, or open to hire by any one, and the exporter sold them at definite prices, which yielded him a definite profit.

The old system of buyers and sellers haggling over actual goods at fairs was now replaced by the new method of purchase by sample or even by mere specification.⁶ This was due to the new means of communication, the growth of commercial honesty and confidence, and the application of the system of standardisation and grading to the staples of commerce. Each stock of each staple began to be classified into definite grades, according to the standards laid down for each grade, and each grade was given a definite designation, according to a well-arranged system, all the details of which were known to the dealers. The purchaser then found it unnecessary to examine personally the quality of the staple he was purchasing. He could judge the quality merely by examining a sample or even from a mere description or specification of the particular grade to which the staple belonged. Hence, the few fairs that remained, such as those of Lyons and Leipzig, became really industrial exhibitions for advertising the goods of their areas.⁷

6. *Produce Exchanges.* Produce markets or exchanges have taken the place of fairs, and differ from the latter in important respects. Transactions are conducted on them daily, and not during a few weeks of the year. The goods are sold by sample or specification, and are not present there. Trading is far more speculative on them than it could be at the fairs, and the buying and selling of futures go on, even before the commodity is produced. Export dealers study carefully the conditions of present as well as prospective demand for, and supply of, the commodity in question, before entering into futures transactions. Hence, these transactions reduce price fluctuations.

Moreover, a manufacturer can insure himself against the risks of fluctuations in the price of the raw material required by him by making a forward contract, i.e., by placing an order with a dealer in futures, for a certain amount of the raw material of a certain quality, to be delivered to him on a certain future date, at a particular price. When that date arrives, he need not take delivery of the material, if he does not want it just at that time,

6 See Birnie, *op. cit.* p. 54.

7 See Birnie, *op. cit.* p. 55.

or if it is not of the quality required by him. If the price has risen, he simply receives from the dealer the difference in the price prevailing on the exchange on that day and the price mentioned in the contract, and uses the amount to meet the loss that he may suffer from having to pay a higher price for the material, than he actually takes up than the price he had estimated originally to pay. If the price has fallen, he can escape the obligation to take delivery of the material by paying the dealer the difference between the two prices, but this loss is made up by his taking up the material needed by him at a price lower than what he had originally calculated he would have to pay. He thus transfers his risk to the dealer in futures, who like, the insurance company, specialises in the business of shouldering business risks.

A produce exchange may be general, dealing with a number of commodities, or special, dealing with a single commodity. The former are small in number, the most notable example being an important food or raw material, such as cotton, wool, coal, iron, rubber, wheat, sugar, tea, etc. On account of railways and steamship, each produce exchange can be supplied with the particular commodity from any part of the world, where it may be produced. Moreover, each exchange is telegraphically connected with the others, and any exchange in the price on one is at once known by the others. The result is that the market for the chief commercial staples embraces the entire world, and a single world price for each staple has come into operation.

Manufactured goods are not dealt in on the exchanges because it is difficult to standardize them. They are, therefore, sold through wholesale and retail dealers and commercial travellers. By stimulating the demand of consumers and making the supply effective, the commercial travellers have come to play a very important part in the modern commercial system.

7. *The rise of Retail, Departmental and Multiple Shops.* The rise of shops altered the character of the weekly markets. Many craftsmen maintained shops in many towns from the Middle Ages, for selling the wares that they turned out. But modern shops run by dealers in goods gradually developed from the end of the 18th century. At first they were general stores, but with the growth of population and the habituation of the customers to them, small specialised shops gradually came into existence. For some time, they were very modest and without any show. Gradually, they began to make a show by means of glass windows and gilt name-boards. Later the large shops or departmental stores, occupying big buildings, having numerous departments and providing for a wide variety of the wants of customers, came into existence in the important towns of Europe.

and the U.S.A. They had no branches in other towns, but distributed their illustrated catalogues very widely, and did a very large mail order business in the mofussil.³

Then another kind of shop, *viz.*, the multiple shop or chain stores, developed. It meant an enlargement of capital, but not of the business unit. It had many branches in the capital and the provinces, but no shop was very large. It first appeared in the grocery trade and spread later to other trades such as ready clothing, tobacco, beer and spirits. In order to control supplies, many of the large and multiple shops came to have their own tea plantations, fruit farms and food preserving factories. The small shopkeeper was checked but not killed by rivals, because he possessed certain special advantages, which they lacked. He was more easily available to his customers, could give more detailed attention to their needs, and often granted them credit. On account of these developments the weekly markets were converted into daily markets, for the sale of those commodities, which could not be standardised and had to be personally inspected by traders, before delivery was taken, such as fish, fruit and vegetables.

8. *Commercial Specialisation.* Another feature of the commercial revolution was increasing commercial specialisation. In the Middle Ages, when the market was small, the industrial and commercial functions were performed by the same person, *viz.*, the craftsman, who himself sold the goods that he produced. With the growth in the size of the market, as explained before, the commercial function, *i.e.*, buying and selling, had to be increasingly separated from the industrial function and handed over to specialised merchants and the proportion of those engaged in handling commerce to the total population went on increasing in the industrialised countries of the West, the proportion increasing from less than 6 per cent in 1860 to about 14 per cent by the end of the century. Without the mercantile class as middlemen, the industrial specialisation of these could not have succeeded. In some branches of commerce, the number of middlemen might have become too large or their charges too high, but there was no doubt that they were necessary in every branch. With the growth of commerce, this specialisation increased. Wholesale and retail merchants became quite distinct from one another; each merchant tended to restrict his activities to a single line, and a large number of commercial specialists such as brokers, commission agents and commercial travellers each confining himself to a single branch of trade, began to function.

9. *Commercial Integration.* When the above specialisation tended to become excessive, a revulsion took place, and the

⁸ See Birnie, *op. cit.* p. 59.

tendency towards integration, i.e., the recombination of the economic functions which had separated came into operation and took three forms. Firstly, large shops providing for a wide and varied range of the wants of the people were established; secondly, mercantile houses took to the manufacture of the goods that they sold; and lastly industrial firms established their own retail shops for marketing the goods manufactured by them or obtained control of the shops, which were marketing the goods.

With the development of railways and steamships, the size of factories, workshops, blast furnaces, etc., went on increasing, because they had no difficulty in securing any amount of raw materials and in dispatching very large quantities of manufactured goods to distant markets. Hence, excessive competition, which was not merely national arose among large business firms. The competition reduced profits to such an extent that firms began to combine to avoid ruin. The railways amalgamated and formed transport monopolies, which went on increasing in size. Shipping formed rings and conferences, for which the claim was made that they kept the shipping charges steady and provided better and more regular service. Other business concerns followed their example. Some formed vertical combinations, i.e., union, under single management, of all the successive stages of production from the raw materials to the finished products, on account of the great ease of communications. This form was developed chiefly in the metallurgical trades, in which coal and iron mines, blast furnaces, rolling and steel mills, steel wire and other works were brought under the same management. The best example of this was the United Steel Corporation.

Horizontal combinations were the union, under single management, of a number of large enterprises doing the same kind of production or business, at a particular stage. They were formed for fixing prices, pushing sales abroad and securing further economies and gains from united large-scale administration, by buying supplies in common and distributing them among the combined concerns in such a manner as to ensure continuity in operation and minimum transport charges. While the concerns retained their independence in technical production, they were owned and managed as one. Such combinations did not necessarily control either raw materials or manufactured goods. They simply brought under single management concerns dealing with a particular stage of production. They were national as well as international. A typical example was the American Sugar Refining Company, which had a number of sugar factories. In a few cases, vertical and horizontal combinations went hand in hand, e.g., the American Tobacco Company. The movement towards vertical combination was less strong than that towards

horizontal combination.⁹ The case of the iron trade was exceptional because the supplies of its raw materials, coal and iron ore, being concentrated, those who possessed them could control the trade. Hence, the manufacturers of the more finished forms of iron and steel were eager to own them. But in other trades, the sources of raw materials were abundant and scattered.

Another kind of world combination to purchase raw materials was formed, especially in the metal industries. A group of German metal trades, by buying metals or acting as selling agent for producers, obtained control of the world's meat markets, fixed prices and regulated the production of metals and their products. Again, a large concern, in order to turn its products to the fullest account often took to manufacturing goods varying widely in character¹⁰. Thus, a firm in the U.S.A. or Britain, manufacturing soap, had its own oil-producing factories in West Africa, brought the oil in its own steamers, and manufactured not only glycerine and soap, but also other toilet preparations, candles and margarine and fat for chocolates and biscuits. The 'Big Five' in the U.S.A. controlled nearly 3/4 of all the cattle and sheep killed in the U.S.A., all substitutes for meat, fish poultry, dairy produce, vegetable oil products, canned fruit and vegetables, and also traded in rice, sugar, potatoes, beans and coffee. They sold to the farmers fertilisers, cattle food and many other things required by the latter. They owned most of the elevators and refrigerator vans. On account of their enormous traffic, they obtained special rates and other privileges from the railway companies.

Further, big concerns in different countries made agreements with each other for dividing the world markets among themselves and overcame national systems of protection, e.g., tobacco and shipping companies. The continued existence of all these big businesses, national and international, was made possible only by railways, steamships, cables, telegraphs and telephones, which enabled their different branches to remain in close touch with each other and to unite in a common system.

10. *The Different Forms of Combination.* When the control of combinations over member bodies was tight, they were called trusts holding companies, interlocking directorates or mergers. The trust originated in the U.S.A.. Controlling blocks of shares in a number of competing concerns were transferred to a body of trustees, who operated all the constituent concerns of the trust under the Trust law, according to an agreed policy. The deception or exploitation of the shareholders by the trustees was to be prevented by the enforcement of the pro-

⁹ See Taussing, **Principles of Economics**, Vol. I, p. 73.

¹⁰ See Knowles, *op. cit.* p. 209 and Knight, Barnes and Flugel, **Economic History of Europe**, p. 666.

visions of the Trust law by the courts. The Supreme Court of the U.S.A., however, declared these trusts illegal, being opposed to public interest. Later, the term trust was loosely applied to other forms of combinations. With the dissolution of trusts proper, combinations took the form of the holding company, which obtained a controlling interest over subsidiary companies, by purchasing enough of their shares and appointing its nominees to their boards, so as to determine their policies and arrange restriction of output, division of markets, standardization of products, etc. The original companies retained their existence, and nominally continued to do business as before, but they came to be controlled tightly by the holding company.¹¹

Under the system of interlocking directorates, the various concerns remained under separate control, but community of interests was achieved by the exchange of directors between the different firms. This system, however, did not prove very stable. Finally, combinations took the form of merger or consolidation, i.e., the complete union of the member bodies, which ceased to function as separate units. The absorbing company made an outright purchase of the interests of the consolidated companies, and the shareholders of the latter became the shareholders of the former.

In Germany and on the Continent of Europe in general, combinations took a different form, viz., Kartells, in which the control over member bodies was loose, because their ordinary agreements for pooling, fixing prices, etc., were legal and enforceable by the courts, even though they might be in restraint of trade. The members of the Kartells remained independent and separate in their ownership and administration. They were merely bound to carry out the common agreements for fixing prices or qualities of goods, or restricting output or pooling orders or profits. Kartells were not formed elsewhere, because the agreements, not being legal, could be evaded by the members easily, whenever it was to their advantage to do so.

11. Merits and Drawbacks of Combination. Combinations had the following advantages: (1) They promoted efficiency of production by developing specialisation among their business units in a high degree. (2) As they bought raw materials in large quantities, they could buy them cheaper and transport them more easily and at less cost. (3) They could collect and use by-products on a commercial scale. (4) They could conduct costly research and experiments. (5) They could avoid waste. (6) They could reduce transport charges by sending goods to the consumers from the nearest place of business. (7) They could open up and push on trade, especially foreign trade, by putting up with a loss at first, giving longer credits, and engaging more

11 See Tussing, **Principles of Economics**, Vol. II, p. 421.

competent and active agents and travellers. (8) They could keep production steady, reduce fluctuations in prices and check unemployment.¹²

But they may also create the following evils: (1) Monopoly may be used to keep up prices. (2) They may employ unfair methods to drive out rivals and to prevent new ones from coming, such as sales at ruinously low prices, cutting the price of the article in which competition has arisen and making up the loss by maintaining in those regions in which competition has arisen and maintaining it elsewhere, making agreements with dealers by which the latter undertake to sell only the goods produced by the combinations, and securing rebates and other preferences from the railway companies. (3) They may exercise an undue and unwholesome influence on the finance, politics, press and public life of the country. Hence, in the early years of the 20th century, governments were faced with the problem of adopting measures, which would retain the advantages, and remove the evils, of the combinations.

12. *The Financial Revolution.* The railways opened a new and vast field for the investment of capital in them and inaugurated a new financial era. As the railway shares were marketable, the business of the stock exchanges in the different countries increased greatly. The Governments of Continental Europe and India either guaranteed interest on the capital or raised loans for the railway construction and equipment, and private investors found in this direction a new and big outlet for their capital. Later, they made their capital available to companies for building railways in other countries. This borrowing and lending created a new financial bond for uniting the world. Britain played the most important part in this lending, supplying no less than £1,700 millions, half to the other countries of the Empire and half to outside countries, and formed many companies for the construction and management of railways in these countries. The new and undeveloped countries borrowed the capital in the form of rails, locomotives and other equipment, and paid interest on it in the form of food and raw materials.

The railways also reacted favourably on the expansion and improvement of banking, exchange business, discount and accepting houses and produced exchanges.

13. *The Social Revolution: Growth of Towns: Rise of New Classes: New Personal Mobility.* The railways helped in bringing about a social revolution no less important than the commercial or financial revolutions, by introducing a new personal mobility. This mobility quickened the growth of towns, resulting from the Industrial Revolution. The railways not only made

12 See Knowles, *op. cit.* p. 211.

it very easy for people to move into towns, but also provided food to the towns far more easily than roads or canals could do. Moreover, excellent railway facilities, for bringing raw materials to towns and for carrying away finished goods therefrom, induced manufacturers to establish their factories in towns. In the U.S.A., competing railway companies gave them special facilities for these purposes. In Britain and Europe also, the railways, in spite of their monopoly, did the same, because it paid them to develop business in towns. The growth of towns, however, was due to other factors also, such as greater opportunities for obtaining employment there, the attractions of town life, radical improvements in the sanitation of towns and consequent fall in the death-rate, and adequate water supply from long distances by means of the new pipes provided by the latest engineering developments, etc. The growth of towns along the coast as holiday resorts was due to the cheap, quick and easy transport to and fro, provided to the holidaymakers by the railways.

Then the railways created a new class of transport workers and greatly increased the trading class. The navies, who had constructed the roads and canals, now constructed the railway tracks and kept them in repair. In addition, plate-layers, drivers, firemen, cleaners, guards, shunters, station masters, workshop operatives, etc., and porters, who carried goods to and from railways, came into existence. Similarly, the crew of ships and dock workers increased greatly in numbers. Hence, the transport workers came to be one of the largest working classes in the countries in which the railways and steamships became important.

The numbers of the trading class increased rapidly on account of the following causes: (1) More people were required to deal with the greatly increased transactions in old products and with growing transactions in new products, resulting from the railways, which enabled commodities like tea, coffee, cocoa, sugar, rice, dry fruit, fresh fruit, etc., to secure world markets. (2) In large towns, direct dealings between producers and consumers became very difficult and the intervention of traders was found necessary. (3) The scarcity of space and lack of facilities for storing in towns made it difficult for housewives to store goods, and storing was done by tradesmen. (4) Large business concerns required agents and travellers to distribute their products.¹³

The railways adversely affected the small shopkeepers and artisans, but benefited the peasants. The big stores, which sent goods to customers by railways after contacting them by means of illustrated catalogues, took away much business from the small shopkeepers. When the railways could bring bulky arti-

13 Knowles, *op cit.* p. 221.

cles from large but distant centres, the local artisans and domestic workers lost much of their custom. But the farmers realised higher prices for their surplus produce, on account of access to wider markets of big towns than those of their neighbourhood. The fishing industry also benefited, because railways and steamships possessing cold storage facilities, could carry fish quickly to wider and distant markets. Hence, capitalists entered the industry and trawling companies replaced the individual fishermen acting on their own. Further, railways and steamships freed women from much of the work of preparing the home food supply by making available to them biscuits, jams, pickles, cakes, sweets, ham, bacon, etc., from distant factories. Hence, women began to try for employment in other fields.

14. *Migration and Emigration.* The new personal mobility led to migrations of people from one part of a country to another and so raised difficult problems of local administration. It also led to seasonal migrations of people to other countries. Thus, many Russians migrated to Germany at harvest time to help in collecting the harvest. The Irish went to Britain to gather potatoes. The Italians went to Germany and the U.S.A. during summer for building work and to Argentina for collecting the harvest. English skilled mechanics went to the U.S.A. in the spring and summer. Thus, they escaped the taxation of the countries in which they earned money, did not even spend it in them and felt no duties of citizenship towards them.

Finally the new mobility led to large emigration of people from Britain, Ireland, Germany and the countries of Southern and Eastern Europe to the U.S.A., Argentine, Canada, Australia, New Zealand and other colonies. Many of the craftsmen and peasant farmers of Britain, who were driven out of their traditional occupations by the Industrial and Agrarian Revolutions, and were in a distressed condition, were helped by charitable associations to migrate to the U.S.A., Canada, Australia, etc. Many persons did the same from Ireland, on account of over-population in that country. Those who were involved in the liberal political movements of the middle of the century, the freed serfs who could not adjust themselves to the individual farming, which replaced communal farming, and those who suffered from the excessive sub-division of small farms, migrated from Germany, chiefly to the U.S.A. So did the peasants of Italy, Austria, Hungary and Russia, who found social and economic conditions very wretched at home. All these migrations were stimulated and actively assisted by steamship companies and their agents, who, for their own gains drew rosy pictures of life and opportunities in the new countries. Until the eighties, the emigrants were carried mostly by the British steamship companies, as Britain was by far the greatest shipping country. Afterwards, other countries, especially Germany, developed their

own shipping, and to stimulate it, captured a substantial part of the emigrant traffic, in order that they might not have to depend upon British ships for carrying their trade.¹⁴

The governments of the countries concerned endeavoured to check emigration by prohibiting advertising and restricting other activities of steamship companies, because it was not in the interest of the nations that young and healthy persons should go away from them in large numbers, leaving behind too large a proportion of the very young and old. The governments of the countries, in which these people immigrated, had to deal with an equally difficult situation. The immigrants, frequently underbid the home workers, as in many cases they had a lower standard of life; their standard of sanitation was lower; they had to secure work as soon as they landed; they crowded in the ports and other towns and increased the housing shortage; they collected in national groups which were difficult to control; and they felt no sense of duty to their adopted country. In these respects, the English, German, Irish and Scandinavian immigrants did not raise great difficulties. But the later immigrants from Southern and Eastern Europe did create very great difficulties, so that all countries had to pass laws for regulating immigration. Some forbade the immigration of the diseased and criminals only. Others, particularly the U.S.A. and Canada, severely restricted immigration.

The British Empire also had to face a similar problem. Indians, Chinese and Japanese began to migrate to Australia, New Zealand and South Africa. Indians were welcomed into Mauritius, British Guiana, Trinidad and Jamaica, because the Negroes there were found utterly inefficient. But the trouble arose in the self-governing Dominions, as the standard of life of the Indians and Chinese was lower than that of the Europeans living there. Hence, to prevent the standard of the latter from being lowered by the underbidding of the former, their governments adopted measures to prevent further immigration of these people and to stimulate the return of those who had already come in. Indians, as citizens of the British Empire, strongly resented these measures and claimed freedom of movement in the Empire. The Chinese claimed reciprocity on the ground that the British had compelled them to open their country and ports to Europeans. The problem remained unsolved.¹⁵

15. The Commercial Revolution in India. The effects of the commercial revolution in India were rather peculiar. During the half century that preceded the First World War, India's foreign trade increased more than four-fold. Between 1864 and 1914 the value of its imports increased from Rs. 30 to 150 crores.

14 See Knowles, *op. cit.* p. 229.

15 See Knowles, *op. cit.* p. 231.

and of its exports from Rs. 55 to 225 crores. But the character of the trade altered completely. Moreover, England had supremacy in the trade up to the end of the century. Afterwards, the supremacy was challenged and undermined by other countries, especially Germany, the U.S.A. and Japan.

There were several causes for the remarkable expansion of India's foreign trade. The security of life and property, needed for it, was provided by the middle of the century, when the conquest of India by England was completed, and peace and order were established throughout the country. Improved means of communications in the shape of roads, railways, post offices and telegraphs stimulated the internal and external trade by opening up the country, by equalising prices in the country and bringing them into conformity with world prices, widening the markets for agricultural produce, providing new employment, stimulating the growth of towns and ports and facilitating a more even distribution of the population. Then, the opening of the Suez canal in 1869 brought India nearer to Britain by 3,000 miles, revived the Mediterranean route to the East, and increased the opportunities of the countries near it, such as France, Italy and Austria. The advantage of this route was greatly enhanced by the establishment of submarine cable communications between Bombay and Suez. These developments were accompanied by many improvements in the construction and navigation of ships, and by the rapid increase in the shipping of several countries.

The pace of the expansion of India's foreign trade, however, was not uniform during the period. Up to 1873 the increase in exports was rapid, especially of cotton during 1864-9, on account of the American Civil War, while the imports, consisting largely of cotton piece-goods from Britain, were checked by Britain's difficulty of obtaining the usual supplies of cotton, on account of the same war. From 1873 to the end of the century, the expansion of the trade was slow, on account of heavy fluctuations in the sterling value of the rupee, famines and plague. From the beginning of the new century up to the commencement of the World War, the expansion of the trade was unprecedented, owing to the stabilization of the exchange value of the rupee at 1s. 4d., the development of railways and irrigation works, freedom from famines and a sharp decline in the intensity of plague.

The change in the character of the foreign trade took the form of the replacement of the exports of the products of Indian handicrafts by the exports of agricultural produce of large bulk and low value, which could now be transported cheaply over enormous distances, to meet the increasing demand of distant countries for them. Thus, the exports of foodstuffs like wheat, rice and tea and raw materials like cotton, jute, oil-seeds, hides and skins, increased greatly, and in return manufactured goods,

like cotton piece-goods, machinery, hardware, glassware, railway materials, etc., were imported first from Britain only and later from other countries also, prominent among which were Germany, the U.S.A. and Japan, possessing rapidly developed industries. This change in the character of the foreign trade was the result, as explained before, of the adoption of the colonial system and the policy of plantations by Britain for India. The culmination of the policy of free trade, which Britain, for achieving industrial supremacy, adopted for itself and then applied to India, came in 1882, when all import duties in India, with a few unimportant exceptions, were removed. The export duties had been removed by 1874 and those internal duties, which had obstructed trade, by 1853.

16. Britain's Commanding Position in India's Foreign Trade: Later Diversion to other Countries. Although the monopoly of trade between Europe and India that had been granted to the East India Company was removed in 1813, and although the people of all nationalities were given the same freedom as Britain people to build up trade connections with India, the latter continued to hold a commanding position in the foreign trade of India until the closing years of century, on account of the investment of large amounts of British capital in the railways and commercial undertakings in India, the British control of railways, shipping and banking in India; the establishment of British exporting and importing mercantile houses and chambers of commerce and the British control over Indian fiscal policy. This commanding position of Britain was challenged and weakened gradually from the closing years of the 19th century first by Germany, then by Japan and finally by the U.S.A. and France. The chief objects of these countries were to push on the sale of their manufactured goods in the Indian market, to dispense with the services of Britain as a distributing agent for Indian produce by developing direct trade relations with India, and to obtain larger quantities and better qualities of Indian raw materials for their own industries. However, the attempts made by the U.S.A. and France were not in any degree comparable with those made by Germany and Japan. The two former countries, to a considerable extent, remained content to deal with India through London and to utilise the available English services.

The following organisations established by these countries to develop trade with India were meant to secure the facilities, which Britain enjoyed, and received the whole-hearted support of their respective Governments:—(a) Special efforts were made to develop shipping and the carrying trade with India so as to be able to reduce their dependence upon the services of the British shipping. (b) Mercantile houses for conducting the import and export trades were established by them at the chief

Indian ports. (c) The efforts of the mercantile houses to increase the trade of their countries with India were admirably supplemented by those of the respective consulates in India, which gathered valuable commercial information regarding the possibilities of expanding trade with India and disseminated it among the houses in India as well as in their own countries. (d) They dispensed to a large extent with the services of the British exchange banks in financing the trade by organising their own banks, with branches in all the important trade centres of India. Thus, Germany established the Deutsche Asiatische Bank, Japan, the Yokohama Specie Bank, France, the Comptoir National, and the U.S.A., the International Banking Corporation. (e) The German and Japanese merchants and manufacturers recognized that as the standard of living of the masses in India was low on account of their low incomes, cheapness and gaudy and bright appearance of the goods to be offered for sale in the Indian market were far more important than their quality and lasting property. They also recognized that as the masses were under the influence of many curious ideas and superstitions, it was a much better business to manufacture for them what they required than to try to educate them into purchasing what the manufacturers thought they ought to have required. They put these principles of successful business in the Indian market into practice with great energy and astuteness. Agencies were established in the principal trade centres, and the agents personally canvassed the bazaars, however small, allowed dealers to view complete sets of samples, accepted the smallest orders, obtained a first-hand information regarding the requirements of the masses and communicated it to their home manufacturers.

Having manufactured the kinds of goods required by India, the manufacturers granted more facilities to the Indian dealers in them than the English manufacturers did. The former usually quoted prices c.i.f. any Indian port, which included all the charges up to the arrival of the goods at the Indian port and enabled the Indian dealers to estimate their expenses accurately, while the English manufacturers often quoted f.o.b. rates, which left the dealers in the dark as to the expenses of bringing the goods from the manufacturer's works to the Indian port and consequently as to their total expenses. Moreover, the German and Japanese firms granted greater credit facilities to the Indian dealers than the British firms did. The dealers generally preferred D.A. to D.P. drafts, and the former firms not merely met this demand, but frequently granted extended credits over lengthy periods, if the bills could not be paid at maturity. These efforts of Germany were far greater than those of Japan, because until the First World War, the latter was more

concerned with extending its markets nearer home, in Korea, Manchuria and China.

The diversion of the export and import trade of India from Britain is made clear by the following figures. At the end of the century, 29 per cent. of India's exports were taken by the U.K., 7 per cent. by the U.S.A. 6 per cent. by Germany, 5 per cent by Japan, 19 per cent. by other Continental countries, 19 per cent. by the other Far Eastern countries and 15 per cent. by other countries. By the beginning of the First World War, the share of Britain fell to 24 per cent., those of Germany, Japan and the U.S.A. rose to 11, 10 and 9 per cent. respectively, the other continental countries took up 18 per cent., the other Far Eastern countries 7 per cent. owing to a large decrease of the exports of opium and cotton yarn to China, and the other countries 21 per cent. At the end of the century, the share of Britain in India's import trade was 69 per cent., while those of Germany, the U.S.A. and Japan were 3.4, 1.7, and 0.6 per cent. respectively. By the beginning of the First World War, the share of Britain fell to 64 per cent., while those of Germany, Japan and the U.S.A. rose to 7, 2.6, and 2.6 per cent. respectively. Thus, Germany secured nearly as much of the shares of the export and import trade of India as Britain lost.

India, however, like the U.S.A. and unlike Britain, was far more interested in her internal than foreign trade, on account of her vast size and population, varied physical and climatic conditions and enormous and diverse natural resources. The improvement and extension of the means of communication and transport greatly increased the internal trade, which was estimated to be at least 10 times as large as the foreign trade.

CHAPTER IX

THE AGRARIAN REVOLUTION

1. *Revolutionary Improvements in the Technique of Agriculture.* The agrarian revolution was due partly to improvements in the technique of agriculture, partly to the freeing of serfs, who had been tied to the land, and partly to the revolution in transport, considered before. The introduction of winter roots and green crops made the fallowing system unnecessary. Winter roots, such as turnips and beet-roots, could be sown in straight rows, so that hoeing could be done by hand or machine and weeds could be removed, while the crop was growing, and one of the objects of fallowing, *viz.*, clearing the fields of weeds by repeated ploughings, could be achieved. The advantages of producing green crops, such as clover, lucerne and rye-grass were that, like keeping land fallow, they gave it a rest by obtaining from the air, and stored up nitrates in their roots, which formed a valuable food for grain when sown next. Thus, winter roots and green crops fulfilled the double purpose of increasing the winter food supply for cattle and augmenting the yield of grain. As they improved the soil, they could be planted in the fallow year and expanded the cultivated area, as it became unnecessary to keep any land fallow for its recovery. So the place of fallow in the old three course rotation was now taken by the winter root or an artificial grass, and the new four-course rotation consisted of wheat, clover, barley or oats and turnips. More elaborate rotations, up to 9 courses, were gradually developed later, but under the same principle, *viz.*, the alternation of grain crops with artificial grasses and winter roots.

The grasses and roots became the basis of a new scientific cattle-breeding. They not only increased greatly the supply of food for cattle by supplementing hay and natural grass, but also supplied it in winter. It, therefore, became possible to keep the cattle alive during the winter, instead of killing them off at the end of autumn and keeping the meat salted. A great improvement followed in the number, breeding and condition of cattle and sheep. This gave the farmers a larger quantity of natural manure and made it possible for them to increase the yield on their grain crops. Hence, the farmers went on increasing the proportion of their land devoted to the production of animal food and diminishing the proportion devoted to the production of cereal crops. In spite of the smaller proportion, they produced larger quantities of cereals, with the help of the larger supply of manure, and at the same time the larger proportion yielded more fresh meat and milk. Thus, the new technique of agricul-

ture proved to be doubly advantageous. Britain led the way in this revolution, and British farmers and agricultural leaders, like Jethro Tull, Viscount Townsend, Robert Bakewell, Arthur Young and Coke, did the pioneering work in testing and applying the new methods, in inventing drill sowing, deep ploughing and machine hoeing and in discovering the principles of the scientific breeding of animals.

Later in the 19th century, the technique of agriculture made further and important progress, in three respects, *viz.*, the improvement of drainage, the discovery of artificial manures and the invention of agricultural machinery. Drainage was needed to remove superfluous water from the soil, as otherwise the roots of plants would rot in it. The old system of drainage by ploughing fields into ridges was not very effective. The invention, by Smith of Deanston in Scotland, of the Deanston process of draining by means of cylindrical tiles of burnt clay, enabled a great improvement in the condition of the soil, and it was adopted everywhere.

In 1840, a German chemist, Liebig, made the discovery that three chemicals, potash, phosphorus and nitrogen were the chief constituents of plants. This made it possible for chemists to produce artificial manures, which would supply the nourishment required by crops and the manufacture of artificial manures, which came to be called chemical fertilizers, soon became an important industry. Bone meal and phosphoric slag, a by-product of the steel industry, supplied the phosphates; there were large potassic salt deposits in Germany, and nitrate deposits in Chile. With their help, farmers could not merely increase the fertility of the land, but could even reconstitute its composition, and thus became largely independent of natural fertility and natural manures. Hence, during the later years of the 19th century, they came to depend increasingly on artificial manures.

Various machines were invented to economize the labour required for agricultural operations, the most important being the mechanical string binder, which not merely reaped the corn, but bound it into sheaves. As agriculture, however, was bound to depend on nature far more than industry, the importance of machinery in it was much less. But the saving of labour made by it was substantial and important, in view of the fact that there was considerable migration of labour from the country to the towns.¹

2. *The Second Enclosure Movement, the Creation of Large Farms and the Rise of the Rural Proletariat in Britain.* Another aspect of the agrarian revolution was the triumph of individualist farming and the creation of the large farm. The first En-

1 See Birnie, *op. cit.* p. 19.

closure Movement of the 16th century has been explained in the first chapter. In the 18th century, the Second Enclosure Movement removed the final traces of collective agriculture and introduced a system of large individual farms cultivated by capitalist tenant farmers. The peasant farmers, whether free holders, copyholders or leaseholders, disappeared altogether. Landowners could carry out the change themselves by consolidating and redistributing the holdings on their estates, if the farmers cultivating them were mere tenants. But, if they enjoyed proprietary rights, enclosure could be carried out only by means of private Acts of Parliament. The persons interested in getting an area enclosed had no difficulty in getting the Parliament of landowners to pass a private Act appointing Commissioners and empowering them to redistribute the land, including the commons, of the parish or manor, and to give each proprietor a consolidated holding instead of his former scattered strips and his rights of pasture in the village commons.² The creation of large individual farms now became possible. The Enclosure Movement, however, did not make them inevitable. Its only object was to consolidate farmers, large or small.

The victory of large farms was largely due to the opinion of the English agricultural reformers and Government that they were technically superior. This opinion was the result of the great success of large-scale production in manufacturing industries. No help, therefore, was given to the small farmers. Moreover, the English Government, first engaged in fighting Napoleon and later afraid that France might start another war, was in no position to start co-operative societies for the smaller farmers or to provide credit to them in other ways, and to impart instruction to them in the new agricultural methods. Further, during this period, the British towns were growing, the urban population needed more food and great difficulties were experienced in providing it.

The large farmers produced grain and meat in much larger quantities and more economically than the small ones, as they could afford better seed, implements and cattle, and could fatten the cattle better. They had, therefore, larger surpluses of food for the other people. The landlords also preferred the large tenant farmers who required fewer repairs and paid higher rents more regularly. On the other hand, small farmers found that small consolidated holdings, without the rights of common pasture, were useless. They could not raise as many cattle on the holdings as they could formerly do on the large village commons. Fewer cattle yielded them less natural manure, and this in turn yielded less grain. Their poor grain and lean cattle yielded much lower prices than the good wheat and fat cattle

2 See Clive Day, *op. cit.* p. 148.

of the large farmers. They found the cost of enclosure surveys and hedging of the land, too heavy. They had to buy coal to take the place of the fuel, which they formerly gathered freely from the common waste. They had to suffer all this, just when they were losing their weaving and their wives the spinning, on account of the establishment of textile factories.

To make small farms pay, highly intensive cultivation was necessary, but it was unknown to the small farmers of the time. Hence small tenancies were thrown together into large farms. The small owners also disappeared. The more enterprising sold their land, and rented large farms, which they stocked with the money received from the sale. Others sank to the position of agricultural labourers. Not even protection, which did protect the peasant proprietors of the Continent, saved the English yeomen. They disappeared before the repeal of the Corn Laws in 1846. They were sacrificed to the large farmers, for the sake of efficiency and in accordance with the *laissez faire* principle. Their disappearance was an irreparable loss to the social life of Britain and was the price paid for technical progress. So, among the countries of Europe, Britain alone was confronted with the difficult problem of a rural proletariat. In no other country was cultivation separated from ownership to the same extent.

3. *The Repeal of the Corn Laws in Britain.* In 1846 the manufacturing and other non-agricultural interests prevailed upon Parliament to repeal the Corn Laws, which had protected British agriculture by imposing a sliding scale of import duties on wheat and meat, the duties being higher, with the lower prices of these foodstuffs in Britain. The objects of the repeal were to extend the sale of British manufactures to the Continental countries by enabling them to pay for the goods by exporting wheat and meat to Britain, and to prevent the rise in the prices of food and in wages, that would otherwise have taken place on account of the growing population in Britain.

It was claimed by the free traders that the repeal would not harm British agricultural interest, because large imports of food were impossible. This view was fully justified during the third quarter of the 19th century, and British agriculture did not prosper better during any other period. Foreign competition was little felt and prices hardly fell. Railways and steamships were just beginning abroad. Russia was just reconstructing itself after the Crimean War, and emancipating its serfs, had no railways, and was unable to export large quantities. Germany was engaged in wars with Denmark, Austria and France. The Civil War and reconstruction after it kept the U. S. A. occupied. Thus, British agriculture was effectively protected by distances and wars. At the same time, it benefited from the widening of the home agricultural market, brought about by

the British railways, and from the cheapening of manures and the introduction of agricultural machinery.

4. *Agricultural Depression and the Growth of Dairy, Cattle, Fruit and Vegetable Farming in Britain.* In the last quarter of the 19th century, British agriculture suffered from a severe depression brought on by large imports of wheat, chilled beef and frozen mutton from abroad, particularly the U. S. A., Argentina, Canada and Australia. These imports were the result of the revolutionary mechanical developments in transport, considered before. The prices of these foodstuffs fell heavily, many British farmers lost their entire capital and became bankrupt, and agricultural labourers suffered from a fall in agricultural wages, although all other wages had risen.³

From the end of the century, therefore, a radical reconstruction of British agriculture was attempted and the British farmers began to concentrate on the production of dairy products, fruit and vegetables, in which they held a sort of monopoly, so as not to be at the mercy of harvests in other parts of the world. The heavy fall in the price of wheat and meat left a surplus to the British people, who began to use it for increasing their consumption of dairy products, vegetable, and fruit, fresh or in the form of jam. The area devoted to their production was, therefore, extended. On the other hand, the production of wheat fell considerably and its imports increased greatly. The improvement in the breeds of English animals was kept up, because in spite of its higher price, first-quality, home-produced meat remained in good demand, on account of its superiority in flavour over imported, frozen meat.

5. *Commercialisation and Specialisation of Agriculture.* The replacement of subsistence farming by commercialised agriculture with its production for the market, and specialisation in those branches which yielded the highest profit, such as dairy farming, market gardening, fruit culture, beet growing, cattle rearing, viniculture, etc., was another aspect of the agrarian revolution. Even on farms where several branches were conducted, the farmers gave the larger part of their time and energy to a single branch. One drawback of this development was the increasing dependence of the farmers on the merchant middlemen for marketing their products. The latter, on account of their stronger economic position, could appropriate an excessive share of the profits of agriculture for themselves. This factor was largely responsible for the difficulties of the farmers.

6. *Efforts to Restore Small Farms in Britain.* During this period, the emigration of young people from the rural areas of Britain and other European countries to the New World assumed large proportions, and a large shortage of agricultural

³ Knight, Barnes and Flugel, **Economic History of Europe**, p. 440.

labourers was experienced. Hence, an agitation began for the restoration of small farms. It was contended that the labourers were emigrating, because they had no stimulus to remain at home, on account of their inability to have small farms of their own, and that the loss of these virile, young country people was socially very harmful to the counties concerned. The country people were regarded as deserving special help to remain at home in rural areas. Moreover, agricultural conditions were regarded as having changed in favour of the small farmers. They could not produce wheat and meat as cheaply as the large farmers, but they could produce vegetables and fruit better. But public authority alone could bridge the gap, which separated cultivation from ownership, restore small farms and extended the system of cultivating ownership.

Hence, in 1907, the British Parliament passed the Small Holdings Act. It empowered the County Councils to acquire land in their respective jurisdiction, if possible, otherwise compulsorily, at prices fixed by arbitration and to sell or to let it to suitable small farmers, at rates that would merely prevent loss, but yield no profit to the County Councils. Loans could be given given to the Councils at low rates for their expenses. If they failed to act Government could act in their place. Government appointed Commissioners to help the Councils and to see that the provisions of the Act were carried out. Thus, the policy of *laissez faire* in British agriculture was abandoned. Moreover, the agriculture was subsidised with the creation of the Board of Agriculture, in 1889, which began to conduct researches into crop pests, cattle diseases and agricultural methods, to spread knowledge and to give free advice. The result of these efforts was that the public authorities became large landowners, those who had a house obtained land and the number of cultivating owners increased appreciably. But the number of people living in the country could not be increased appreciably on account of the high cost of providing housing to them.

7. *The Disappearance of Feudalism, the Emancipation of Servile Peasants and the Adoption of Intensive Methods of Agriculture in Continental Europe.* On the Continent of Europe, the characteristics of the agrarian revolution were the emancipation of agriculture from the shackles of an obsolete feudalism, and the transformation of the servile into an independent proprietor. While the agricultural population of Continental Europe was servile in varying degrees in the 18th century, that of Britain had enjoyed personal freedom for three centuries. There was, therefore, a great difference between the agricultural problems of non-serf Britain and those of the servile countries in the 19th century. In the former, the lords dispossessed the peasants, while in the latter the peasants dispossessed the lords. The reason was that the Continental landed aristocrats, with a

few exceptions, seldom cared to live on their estates, left the exploitation of the estates to their tenants, led extravagant lives in the pursuit of military, political or diplomatic careers, and sold their rights in the lands to the tenants, who however, did not legally become full proprietors and, remaining subject to the feudal jurisdiction of the lords, had to pay them quit rent and various troublesome charges. From the end of the 18th century, however, the feudal structure was swept away, all feudal payments were abolished and the peasants became the free and unencumbered owners of their holdings.

This meant a complete change in the legal and economic relationship between individuals. The legal and economic systems that had been framed to meet the needs of the feudal state had to be radically modified to suit the new institutions of private property and personal freedom. A new system of local government had to be devised for rural and urban areas, to take the place of the feudal lords and gilds. To allow free human mobility, the laws of settlement had to be modified to permit unrestricted migration in rural areas, and new municipal authorities had to be established in place of the old gilds. The country people were no longer prevented from migrating freely to the towns or even to other countries, or from taking up any industrial occupations that they liked. The emancipated peasants were now able to buy, sell or mortgage their lands freely and to cultivate them as they liked, and paid a fair share of the taxation; from which the privileged upper classes were no longer exempted. They had to depend on themselves to tide over bad times, with whatever help the State could give them but without any help from feudal lords. They thus reached a status of independence and equal citizenship.

The replacement of servile labour, performed by way of labour dues, by free labour that had to be paid wages, enabled the introduction, in the 19th century, in the countries of Continental Europe, of the new and intensive methods of farming that had been successfully carried out in Britain in the 18th century. This reform was necessitated by the rapid growth of population which was outrunning the available food supply. In this reform, however, the ignorant peasants, who had emerged from serfdom very recently, had to be guided by the central and local authorities, until the end of our period. This difficult transition from serfdom to personal liberty and from extensive to intensive farming was disturbed by a widespread agricultural depression brought on by cheap imports of wheat and meat from the U.S.A. The result was a swifter change to intensive and specialised agriculture, the development of agricultural co-operation, State help to agriculture and the restoration of protective tariffs except in Britain.⁴

⁴ See Knowles, **Economic Development in the 19th Century**, p. 46.

8. *Agrarian Revolution in Germany.* In the 18th century, the agrarian organization of the portion of Germany, east of the Elbe, differed from that of the portion west of the river. Eastern Germany like England, had large estates, cultivated chiefly by serfs. In Western Germany, as in France, most of the holdings were small and in the hands of peasants. The characteristics of Eastern Germany were due to the facts that there the conquering Germans ruled over a Slav subject people, and that the Prussian Junkers, like the English landlords, were enterprising and commercially minded, and built up large estates by forced purchases from the peasants, or by their expropriation. The Junkers, however, unlike the English squires, did not let out their lands to tenants, but exploited them personally with the labour of peasants who, by a number of measures, were lowered to the condition of hereditary serfdom. In theory, the peasants were free, but in practice they were hardly better than serfs, on account of the large burdens imposed upon them and the many restrictions placed on their freedom of movement. The powerful kings of Prussia, however, did not allow the landlords to tyrannise over the peasants to the same extent that they were allowed to do in Poland and Prussia. In Western Germany, as in France, the grip of the aristocracy over the peasants was gradually loosened and the peasants became hereditary tenants, possessing almost full rights of ownership, subject to the payment of certain dues in money or kind, and not in work. Many became free to move on payment of a fine, but if they did so, their land was lost to them. The French under Napoleon, hastened the abolition of serfdom and feudalism in the West.⁵

The liberation of peasants in Eastern Germany was a longer process, carried out from above, not forced on the landlords from below. Two great statesmen, Stein and Hardenberg, took the lead in initiating this reform, and three emancipatory edicts were passed in the first two decades of the 19th century, laying down that no one could be a serf by birth, marriage or contract, that any one could acquire any land, that a peasant could become a townsman and vice versa, and that a peasant could learn any trade without the permission of his lord. To make this freedom really effective, the labour services of the peasants to their lords had to be converted into money payments, or giving up a part of their land to the lords. But as the landowners required labour for their large estates, the privilege of the commutation of labour services was granted only to those peasants, who possessed large holdings and had to render ploughing services, with plough teams, and not to the smaller peasants, who had to render hand services. Up to 1848, the enforcement of these edicts proceeded slowly on account of the delaying tactics of the Prussian officials, who were very friendly with the landowners. The Liberal

5 See Birnie, *op. cit.*, p. 25.

Revolutionary movement in 1848, however, quickened the emancipatory movement in Prussia, and in 1850 the privilege of commutation of services was granted to the smaller peasants also. Thereafter, the work of emancipation went on quickly in Prussia and other Eastern States, and was nearly completed in a few years.

The next great reform was to induce the freed peasants to improve their methods which were very backward. The Governments of the various German States had, therefore, to undertake the work of bringing about the abolition of the fallow system, the substitution of rotation of crops, the consolidation and enclosure of the strips of land so as to form compact farms, the break-up and division of the commons, the production of artificial grasses and root crop to feed cattle in winter, increase and improvement in cattle breeding, and the provision of agricultural research and education. For securing consolidation and enclosure, it was provided that if the persons owning half of the land wished for its redistribution, it had to be carried out by a commission appointed for the purpose.⁶ The redistribution was carried out to a greater extent in Eastern than in Western Germany, because in the latter, which was mostly hilly and in which, therefore, even neighbouring pieces of land differed much as regards the amount of soil and sunshine, a fair redistribution was very difficult to arrange. Hence, the work of redistributing the land and abolishing common rights was going on when the First World War began. One of the means adopted for bringing about better methods was the encouragement to the production of beet root which required intensive cultivation, proper manuring and a systematic rotation, and the refuse of which supplied winter food for cattle. Hence, not only the Governments of the German States, but also those of Continental countries, subsidized beet sugar, and agreed to abandon the bounty system by the Sugar Convention of 1903 only after they had developed agriculture satisfactorily.⁷

In the eighties, German agriculture began to feel the effects of large imports of wheat and meat from the U. S. A. The German Junkers combined to demand a protective tariff and secured it. The small peasants also were protected by it, but were really saved by the co-operative movement. From the middle of the century, they began to be organised in small groups into Raiffeisen co-operative banks, on the principle of unlimited liability, which enabled them to obtain credit at reasonable rates from the banks, instead of at exorbitant rates from moneylenders. This was followed by other forms of co-operation, for purchas-

⁶ See Knowles, *op. cit.* p. 68 and Middleton, **Recent Development of German Agriculture**, pp. 7-9.

⁷ See Clive day, *op. cit.* p. 383.

ing manures and good seed, hiring machinery, establishing power stations to supply electricity to the farms, sale of agricultural produce after grading and packing it properly, insurance specially of cattle and establishing joint dairies and beet sugar factories. These forms of co-operation were encouraged and even subsidized by the Governments of Germany and other countries, because they had a far greater educational effect upon the small peasant than demonstration Government farms and agricultural schools. The German Government also provided cheap transport facilities. The German Government regarded the peasants as the country's chief means of defence, supplying better soldiers than the townspeople could do, supplying the backbone of the army and augmenting the home food supply of the country, so as to make it safer during a war.

As a result of the measures outlined above, the yield of cereals and potatoes in the country during 1880-1914 was more than doubled, in spite of the facts that there was little reclamation of new land, that only $\frac{1}{5}$ of the cultivated land in the country was good, $\frac{2}{5}$ of it was very poor and that the climate was not favourable to the production of large crops. In 1914, 93 per cent of the land in Germany was owned by the men who cultivated it; small holdings of less than 50 acres made up half the total area; and the large landowners possessed only the other half, although they had considerable political influence. The peasants of Germany, unlike those of France and Russia, did not have to break out into a revolution, because a paternal Government assisted them to increase the yield of their lands more than in proportion to the growth of population, and because many of the peasants emigrated to the U.S.A. or took up work in mines and factories, thereby creating a considerable scarcity of agricultural labour.

9. *Agrarian Revolution in Russia.* The Russian peasants became serfs only from the 15th century, when the Czars created new nobles and rewarded them for their services with grants of land. But they wanted labour to cultivate the land, and as the peasants were inclined to wander, they were allowed to tie down the peasants to their land and to impose other restrictions to such an extent that the peasants in course of time became worse off than the serfs of Western Europe. The latter were at least protected by law against personal violence from their lords; the former were not.

The unit of rural organization was the mir, a village of servile peasants. Each male child born in the mir or commune had a right to the land. Hence, the land of the mir had to be redivided periodically to provide for the new members. This custom had disappeared very early from the agricultural village community of Western Europe. Further, the Russian Govern-

ment did not collect taxes from the peasants direct, but made the mir responsible for the contributions of its members.

Czar Alexander II issued the Emancipation Edict in 1861, as he was convinced that the abolition of serfdom had become inevitable, and that it was better to abolish it from above than to wait until it was abolished from below.⁸ The serfs obtained freedom, but in return they had to give up a portion of their land to their lords, and obtained the remaining land in copyhold, subject to the payment of an annual rent to their lords. Government, however, gave them advances to enable them to purchase the freehold of their lands, charging them an annuity of 6 per cent which included interest and amortization, and which would repay the advances fully in 49 years. The Czar made sure that all the peasants were freed and provided with land, so as to prevent the rise of a landless rural proletariat. But one result of the emancipation was that nobles found it impossible to secure enough labour to exploit their estates and had to go on selling their lands to the peasants. Their increasing economic weakness was one of the causes of the revolutionary movement during the opening years of the new century.

The peasants hated the surrender of a part of their land to the lords and the payment of dues to the State, as the price of their freedom. In many cases, they had to be compelled by force to carry out the provisions of the Edict. Moreover, many peasants were made to pay a large annual rent than their holdings could bear, because the rent was fixed according to the value of the labour services due from the holdings, even if that value was much higher than that of the yield of the land. Hence, arrears went on increasing and Government was compelled to cancel all arrears and the remaining payments, with effect from the beginning of 1907. Thus, the peasants obtained full ownership of their land, and Government paid a substantial part of the compensation to the landlords.

The task of resettling 40 million freed peasants over an area, which was 2/3 as large as Europe, was gigantic.⁹ They continued to farm in strips and agricultural improvements were made slowly, on account of the peasants' ignorance, conservatism, lack of intellectual guidance resulting from the exclusion of the priest and the former landowner from the mir by government, tradition of common work, and unwillingness to improve land which might go to others at the next redistribution. Not knowing intensive farming, the peasants began to demand more land to farm extensively. The well-to-do peasants who could afford to purchase land from the nobles formed a separate class. The ordinary peasants, in order to pay heavy taxes, and re-

⁸ See Birnie, *op. cit.* p. 29.

⁹ See Knowles, *op. cit.* p. 78 and Wallace, *Russia*, p. 503.

demption instalments, had to export more grain, on account of the fall of prices brought about by the American supplies. The burden became so heavy that many peasants either emigrated to the U.S.A. or wandered to Germany to help in the gathering of the harvests.

In 1905, the climax came and the peasants rose in revolt to demand more land. This compelled Government to face the agrarian problem. In 1906, an imperial edict permitted the peasants of the mir to establish the permanent occupation of holdings by common consent, and failing that, permitted any peasant, who wished to withdraw his holding from the communal system of the mir and to place it under his private ownership, to do so. There was to be free sale and free movement, the redistribution of land was to be abandoned gradually, and the strips were to be rearranged and enclosed.¹⁰ This meant the break-up of the mir, the abandonment of the entire collectivist system of holding land, the buying out of the nobles and the creation of peasant proprietors. With the introduction of the system of direct collection of taxes from the beginning of the new century, the mir was no longer useful to Government for collecting taxes. Nevertheless, individual farming progressed slowly, and a large part of the Russian land remained under the mir system. Government also tried to meet the demand of the peasants for more land by setting up Commissions to sell them the lands of the nobles and the State through Land Banks.

10. *Agrarian Revolution in the U.S.A.* As the U.S.A. was a new country, its agricultural problems differed much from those of Europe. The South was settled by capitalists, who conducted capitalistic agriculture on large plantations, with the labour of imported Negro slaves, producing tobacco, sugar and cotton for the overseas markets, and importing manufacturers from England, and pork and corn from the North. As land was abundant and the slave labour inefficient, cultivation was extensive. Cultivated land became soon exhausted, and was abandoned for about 20 years to enable it to recover its fertility. In the North, on the other hand, the usual holding was the 'homestead', which could be cultivated by a farmer and his family, as the settlers had no capital to buy slaves; and as the cold climate was not suitable either for coloured labour or tropical or subtropical products. The Northern settlers produced their own food and much of the food required by the South, and lived in villages or townships. They were trying to be self-sufficient and to develop manufactures, as they were too poor to buy them from abroad. Hence, they were protectionist. The Southern settlers were in favour of free trade, because they did not wish

10 See Clive Day, *op. cit.* p. 528.

to pay more for their manufactured goods, in order to help the development of manufacturing industries in the North.¹¹

When the U.S.A. began to expand in the West beyond the Alleghanies, a tussle went on between the Southern and Northern States on the question whether the new States should be slave or free. Lincoln's election, as President, marked the triumph of the North and seven Southern States left the Union. The Northern States decided to bring them back into the Union by force and to compel them to give up their type of civilisation in favour of the Northern type, and the Civil War broke out in 1861. The Northern States won on account of their larger population, the inability of the Southern States to import food and war materials, with the blockade imposed by the ships of the Northern States, and their lack of munitions and stores caused by the absence of manufacturing industries. The slaves were then declared to be free in all the States. The rural organization of the Southern States had to be rebuilt, and the large plantations broke up into small farms. The planters were either in heavy debt and sold their estates in parcels, or could not cultivate the plantations with free labour and leased them in small holdings to the poor Whites, who had been overseers, or to the freed Negroes. As the small farmers were not self-sufficient, stores were established and went on increasing in number, and towns came into existence in the South as in the North. Thus, the South and the North came to have similar economic conditions, and the name of the United States became justified for the first time.

The break-up of the plantations into small farms meant that cotton could no longer be produced extensively. A great development was brought about in cotton growing with the help of fertilisers and the production increased four-fold. The small farmer, however, was at the mercy of the local storekeeper, who charged high prices for the goods supplied, and paid low prices for the cotton, which he purchased from the farmer, as the agent of a big cotton merchant. The farmer, therefore, became heavily indebted to the merchant, and had to go on producing cotton for the latter, so that his personal freedom was not much more real than that of the Russian peasant before 1905. Another difficult problem was the inefficiency of the Negro cultivator, whose wasteful methods became less tolerable with the progressive decrease in vacant land.

While the agrarian revolution and reconstruction went on in the South, a great expansion took place in the Middle West and the U.S.A. U.S.A. began to export large quantities of grain and meat to Europe. The exports were greatly helped by the astounding fall in freight charges, resulting from the competition

11 See Knowles, *op cit.* p. 86.

among the railways, and waterways, and among the steamers and sailing ships, and from the replacement of iron rails by steel ones, which were stronger and more lasting and which, therefore, could carry larger and heavier loads far more cheaply.

The exports were stimulated further by the elevator companies, which were established all along the railway routes and which handled, stored, graded and despatched the products in larger quantities and far more cheaply than the farmers could have done. The invention of agricultural machinery, such as the reaper, binder, steam thresher and steam plough, of the refrigerator vans for carrying meat without deterioration, and of a new milling process which yielded as fine a flour hard spring wheat, as that from winter wheat, also helped the exports. Again, grain could be produced cheaply on virgin land, which was cheap and abundant, needed no manure and on account of the elevators needed few farm buildings. Finally, the concentration of the meat-packing industry in a few centres enabled the development of by-products, from which so much profit was made, that the meat could be sold much cheaper. The cheap wheat and meat from U.S.A. captured the markets in Britain and the Continent, until the Continent set up tariffs in the eighties and raised them, as the imports from the U.S.A. increased. Britain, however, remained free trading from the middle of the century and a flourishing market for the American products.

The development of the Middle West was promoted not only by the above factors, but by others as well. The part played by the railways in making this region accessible and facilitating its colonization has been explained before. Further, settlers came to this region in increasing numbers from Germany, Scandinavia and other countries of Europe and from the Eastern States of the U.S.A., as the land laws enabled them to obtain land for nothing, and as the new inventions and the European markets opened up excellent prospects of securing large profits in the production of wheat and meat. The vacant lands had been ceded by the States to the Federal Government and formed the public domain by the beginning of the 19th century. The South had wanted the domain to be used for building up large farms and a sparse population, so that its system of plantations might not be upset. The North wanted small farms and vigorous colonization. The Civil War decided the question in favour of the North, and the homestead Acts provided that any citizen over 21 could obtain 160 acres of public land without payment, if he cultivated it himself for 5 years, or if he planted trees on $\frac{1}{16}$ th part of it and protected them for 8 years. The Desert Land Act of 1877 provided for the grant of 640 acres of non-arable land to any citizen for establishing a ranch. The

demand of the meat-packing establishments developed the cattle interests of the Central West and the cattle ranches of the Far West. The migratory character of the American people, and the ease with which an American farmer gave up his farm several times during his life and 'moved West' were most remarkable. In the settlements, the foreigners were outnumbered and soon absorbed by the Americans, and so the national characteristics were maintained. Moreover, many foreign immigrants came to cities as they wanted without employment any loss of time, and only their next generation moved to the farms.

In spite of the policy of creating landowners only tenancy went on increasing, and in 1910, 37 per cent of the land was held by tenants. In the closing years of the 19th century and the opening years of the 20th century, there were two important problems, *viz.*, the introduction of intensive cultivation and fighting the boll weevil pest of the cotton plan. The State opened experimental stations and schools for introducing intensive methods and training people to teach them, and was trying to find out the means of eradicating the pest. In the early years of the 20th century, the population increased rapidly and the U.S.A., not only ceased to be a great exporter of wheat, but also began to import food in increasing quantities. Moreover, a larger proportion of the population began to live in towns as agricultural machinery increasingly replaced human labour.¹²

11. *The Agrarian Revolution in Japan.* Among the advanced countries of the world, Japan had the smallest proportion of cultivated land to total land in the country, *viz.*, 15 per cent, owing to the hilly nature of a large part of the country. As this small area had to support a large and growing population, the average size of the agricultural holding in Japan was the smallest among the great nations of the world, *viz.*, 2.4 acres, and 70 per cent of the agricultural families had holdings no larger than 25 acres. After careful enquiries, it was estimated that even if all the possibilities of land reclamation were utilized, not even one acre could be added to the average holding. Hence industries were gradually developed, food was imported in increasing quantities, and the percentage of the population depending on agriculture was brought down from 85 in 1868, at the time of the Meiji Restoration, to 53 by 1914. At the same time, intensive cultivation was resorted to by using fertilizers, improved seed and mechanical appliances on an increasing scale so that the yield of rice, the principal crop of the country, per acre, increased from 24 to 38 bushels, which was the largest yield among the rice-producing countries of the world. The yield of the other food crops wheat and barley, was similarly improved. Japan did not produce the raw materials of indus-

¹² See Knowles, *op. cit.* p. 102.

tries except silk in large quantities and relied mainly on their import. A programme of land reclamation was also carried out.

The economic condition of the Japanese farmers, however, remained unsatisfactory, in spite of the abolition of feudalism. To meet its growing expenditure, the new Government imposed substantial taxes on them and made them pay the taxes in money instead of in rice. The farmers had to sell the rice at low prices to the local traders as, on account of defective means of transport and lack of organization, they could not send it to distant markets, where it could be sold at higher prices. Hence, many of them could not meet their expenses, after paying the taxes, and had to borrow money from the local traders-cum-moneylenders, at high rates of interest, on the security of their land. The ownership of the land gradually passed to the latter and the former became their tenants, so that the place of feudalism was taken by landlordism. Moreover, many peasant proprietors rented land from others, as their own holdings were too small to maintain their families. Thus, nearly half of the cultivated land came to be cultivated by tenants, who had to pay from 50 to 60 per cent of their produce as rent. In addition they had to pay taxes and interest and buy fertilisers. Many of them, therefore, became more involved in debt. Hence, in 1900, a law was passed permitting the establishment of co-operative societies for credit, production, purchase and sale, and providing for their inspection by Government. A number of societies was formed and the co-operative movement was launched. It made substantial progress and was mostly confined to the peasants up to 1914.

CHAPTER X

AGRARIAN DEVELOPMENT IN INDIA IN THE MODERN ERA

1. *Main Features.* These developments were not of a revolutionary character and took place very slowly. But they were many-sided and were concerned with the commercialisation of agriculture, changes in the methods of marketing crops, improvements in agricultural methods and the construction of irrigation works by Government, a radical change in the character of famines, tenancy legislation to protect tenants from the exactions of landlords, the growth of indebtedness of the peasants and a gradual transfer of the ownership of land from them to the agricultural moneylenders, the growth in the subdivision and fragmentation of holdings, a change in the character of villages and in the position of the village artisans, etc. These will now be considered.

2. *The Commercialization of Agriculture.* This was largely the result of the transport developments and improved communications considered before. The breakdown of rural isolation and the stimulus given to the building up of the economic life of the country as a whole, ushered in an era of high prices of agricultural commodities and specialisation in the production of particular crops. The entry of India into the world markets enabled the farmer in his distant village to obtain a larger profit by securing a share of the price offered by distant nations for his produce, which until then had merely supplied the needs of his rural neighbourhood. The development of transport greatly checked the previous violent fluctuations between harvest and bazaar prices and reduced the exploitation of the farmer. Before the railway era, whenever crops were abundant, prices fell heavily, owing to the difficulty of transporting them to places where prices were higher. For the same reason, whenever the crops failed, prices rose very high. Railways now made the country almost one market. The deficiency in one part of India was made good quickly by the surplus of other parts, and the fluctuations in prices came to be much smaller. The powerful and ubiquitous agency of organized commerce took the place of the old system of isolated and self-sufficing villages. In all the parts penetrated by the railways, a general levelling of prices took place, and even the local prices were much influenced by prices in distant parts of the world. The opening of the Suez canal in 1869, which made the Western markets much more accessible to the bulkier and heavier pro-

ducts of Indian agriculture, greatly promoted this tendency. It meant a change from cultivation for home consumption to cultivation for the market. Although a large part of the cultivation in India continued to be carried on for home consumption, cultivation for the market gradually increased in most parts of the country.

As long as the self-sufficient village economy, in which all payments were made in kind, mostly at harvest time, prevailed cultivation was almost entirely for the production of the food needed by the peasant and his family. The transport developments, which destroyed the self-sufficiency of the village, also changed its agricultural economy. The first event in the Western hemisphere to produce an important effect on India in this direction was the American Civil War. Until then the English cotton textile industry had obtained most of its raw cotton from the U.S.A. Exports of raw cotton from India had been small on account of its short staple, the difficulty of communications and the absence of a stable export market. But on account of the blockade of the Southern States of the U.S.A. by the Northern States, during the War, American cotton could not be sent to England and the English manufacturers turned to Indian cotton. The Indian Government facilitated the export by appointing Cotton Commissioners for Bombay and the C. P., and by accelerating the construction of roads and railways. The Indian peasants also showed their natural shrewdness by snatching this opportunity quickly to secure large profits. Hence, the amount of raw cotton exported to England was more than doubled and its price was more than trebled, and those of the cotton-producing peasants, who were not extravagant and careless were able to free themselves from indebtedness to moneylenders.¹

Although the prosperity was temporary, its chief significance was that it made the Indian peasants realise that they were no longer economically separated from the rest of the world, and that not merely local needs but also external factors should determine the nature and size of their crops. Hence, the area devoted to the cultivation of commercial or cash crops increased gradually, and crops produced in different areas became specialised. Except during periods of famines, the exports of Indian agricultural produce went on increasing, and the internal trade also expanded steadily. The prices of commercial crops rose, and those landowners, peasant proprietors or tenants, who were not hopelessly in debt and had holdings large enough for the cultivation of these crops and their own maintenance, were able to improve their condition.

The total area under cultivation went on increasing owing

¹ See Gadgil, *op. cit.*, p. 17.

to the growth of population. All suitable land had already been brought under the plough, but the extension of irrigation in the canal colonies of the Punjab, in the U.P. and elsewhere enabled inferior lands, such as waste land, grazing areas and cleared forest land, to be brought under cultivation. The yield per acre of the cultivated land in India did not increase. The areas under food and commercial crops went on increasing in the same proportion as the total cultivated area. The areas under the two kinds of crops remained at 88 and 12 per cent of the whole area. The high percentage of the former was due to the fact that the increasing population of the country had to produce its own food supply. The commercial crops, for which the increase in area was most prominent, were cotton, jute, sugar-cane and oilseeds. The increase in the area devoted to these crops went chiefly with the increase of irrigation. This development brought about the specialization of different areas in particular crops to a certain extent, e.g., Bengal in jute, Bombay and Berar in cotton, the C.P. in oilseeds, and the Punjab in improved wheat.² This development was made possible only by transport and better communications, which made wider markets available to the commercial crops and at the same time enabled the producers of these crops to obtain their food from other areas. The areas under opium and indigo diminished, the former due to the agreement of the Government of India with that of China for stopping the export of opium to China and the latter due to the increasing production of synthetic indigo.

3. The Change in the Methods of Marketing Crops. The development of communications facilitated the introduction of money economy and brought about the change in the methods of marketing crops. These also promoted the commercialisation of Indian agriculture. Payments of rent and Government assessment and payments for services were to be made in cash instead of in kind. Interest also had to be paid to the moneylenders. Hence, the cultivators began to sell an increasing part of their produce immediately after the harvest and to resort to the market for their needs. In the case of food crops, they had often to buy back, later in the year, from the moneylenders, a part of the crops, which they had sold to the latter at harvest time. The prices at harvest time were much lower than those which prevailed, when the cultivators bought back the grain, and those who were compelled to do so, became more and more indebted and were ultimately ruined. Further, an efficient marketing organization, consisting of exporters, their agents and wholesale dealers, was established for moving the crops quickly to the ports.

A majority of the cultivators did not get their fair and

² See Gadgil, *op. cit.* p. 161.

proper share of the profits of commercialised agriculture, because their farming was carried on by small units, without any special organisation for their protection. As long as they carried on subsistence farming and were protected by the old village organization, no other organisation in rural areas was required for their protection. With the commercialisation of agriculture, the establishment of wide and competitive markets and the decay of the old village organization, a special organisation became necessary for their protection. But their interests were left to the free play of economic forces, and they were made to deal with the new conditions without any protection or guidance. They were very small units as compared with the distributors and consumers of their produce. The latter progressively improved their organization and became stronger. Owing to the inadequacy of roads, bridges and feeder railways, many cultivators found it very difficult to have direct connection with consumers and wholesale dealers. Their other difficulties were shortage of capital, indebtedness, illiteracy, lack of properly regulated markets, absence of organisation among themselves, shortage of storage accommodation, lack of standardization, grading and uniform packing, lack of well-organised market intelligence, confusion regarding weights and measures, and the necessity of paying the heavy land revenue to Government at particular times.

Hence, they became dependent upon a long chain of professional dealers and middlemen, especially in the case of staple exports. The immediate link in the chain was the village *Bania* or *Sowcar*, who was both a moneylender and a grain merchant and therefore, in a specially advantageous situation to obtain control over the produce of the cultivators. The produce passed through his hands to the bigger middlemen, who found it difficult to deal with numerous isolated units of small producers and preferred to do business with him. He could gather up the produce of a village and offer it in fairly large quantities. He thus established himself as the only purchaser in the village and was in a position almost to dictate his own terms. The financial difficulties of many cultivators compelled them to sell their produce to him immediately after harvest, instead of waiting until the excess had disappeared and prices had risen again. Many of them were even compelled, in return for advances of money, to mortgage their crops in advance to him or to large firms of middlemen, acting through him. Hence, only a small part of the profits of commercialised agriculture reached the cultivators.

The best solution of their difficulties lay in the promotion of co-operative credit and marketing. Government began to realise this from the beginning of 20th century, and the Co-operative Societies Act was passed in 1904 and a Registrar of Co-operative Societies was appointed in every province to help in

the development of the co-operative movement on the right lines. The Act, however, provided for the creation of credit societies only, and postponed all other forms of co-operation, on the ground that the backward peasants should first learn the principles of co-operation from its simplest form, viz., credit, and take up the other and more difficult forms later. The Act of 1912 removed the restriction and allowed non-credit in societies for sale, purchase, production, insurance, housing, etc. A number of sale societies was started especially for the sale of cotton in Bombay, and C.P. and the sale of gur in Bombay, but the progress made by them by 1914 was exceedingly small. Their difficulties were the lack of expert knowledge and guidance regarding market conditions and tendencies, the lack of proper business management, inadequate finance for making advances to members against produce, the lack of power to make all members sell their produce through themselves (societies), the absence of storage facilities and the opposition of the traders.

The vast army of middlemen, however, was not able to appropriate all the profit of commercialised agriculture; a share of it went to the cultivators and those of them, who were not very heavily indebted and did not have unduly small holdings, were able to raise their standard of living to an appreciable extent. They lived in better houses and their clothing improved a little in quantity and quality; copper, brass and enamelled iron utensils took the place of earthen pots; tin lamps burning kerosene oil came into use; indigenous medicines were used on a large scale and even English medicines began to be used to some extent; more money was spent on things like umbrellas, trunks, looking-glasses, pictures and toys, which increased the comfort of life. The improvement in the standard, however, could not go far, and the money spent on the above articles formed only a small part of their total expenditure.³

4. *Improvement in Agricultural Methods.* The improvement in the condition of the cultivators also gave a certain stimulus to agricultural improvements, such as the introduction of better kinds of crops and better methods of cultivation, digging of more wells and the purchase of better cattle. The cultivators of most parts of India had sufficient knowledge of, and were aware of the importance of, fallowing, the rotation of crops and the use of good seed, and Dr. Voelcker, the European agricultural expert, who was brought to India by Government in 1889 to give expert advice, was favourably impressed by the practice and standard of cultivation in certain parts of India. In his report, he had stated that Indian agriculture was neither backward nor primitive and that its inferiority was the result of the absence of facilities and not of inherently

³ See Pillai, *op. cit.* p. 74.

bad systems of cultivation. Moreover, pressure of population, poverty, indebtedness and scarcity of firewood compelled many cultivators to give up fallowing and rotation, to use poor seed and to use farmyard manure as fuel.

Hence, one of the ways of improving the condition of agriculture and of the cultivators was to improve the facilities available to them. Government alone could undertake this improvement for three reasons. Firstly, although the cultivators were quick at adopting improvement, when they were convinced of their profitability, owing to their illiteracy, they were incapable of thinking out and initiating the improvements themselves. Secondly, Indian society, especially the part of it living in rural areas, was in the melting pot and without leaders, as the upper classes were in a state of transition from the old ways of thought to new ones. Finally, Government had built up such position of prestige that all people looked to it for starting all measures of reform and were prepared to follow its lead. Hence, whatever progress was made in India in improving its agriculture was mainly due to the efforts of Government, whose motives were threefold. Firstly, it was a question of securing more revenue, and as Government was the chief landlord, the duties performed in England by a good landlord fell in India upon Government. Secondly, Government felt that the decline in India's manufactures should be counterbalanced by a proportionate development of India's agricultural products, if the country was not to be weakened by its dependent and intimate relations with West. Finally, there was the humanitration motive to improve the condition of the only occupation on which most of the people depended, to avert famines and to eliminate indebtedness and the inability to hold up stocks, until prices improved.

Until 1870 the only steps taken by a Government for agricultural improvement were annual grants or gifts of land for experimental purposes to Agri-Horticultural Societies started in Calcutta, Bombay, Madras and a few other places, and the establishment of Botanical Gardens, with experimental farms attached to them. These were successful in introducing new plants and exotics such as tea, potato and cinchona. Their attempts at improving the staple crops like cotton and indigo were not much successful.⁴ In 1870, an Imperial Department of Agriculture, Revenue and Commerce was established through the efforts of the Viceroy Lord Mayo, himself a practical agriculturist, but it was abolished in 1878, as it was unable to deal with agricultural problems, owing to being burdened with heavy land revenue and other duties, and to the lack of co-operation from the Provincial Governments. The few experimental farms that had been started for experimenting on new methods and convinc-

⁴ See Gadgil, *op. cit.* p. 71.

ing the cultivators of the benefits of improved methods and appliances, did not succeed, mainly because their charge was given to persons who were ignorant of Indian conditions and the methods of the Indian cultivators.

The Famine Commission of 1880 recommended the creation of a Central Agricultural Department to be aided by Provincial Agricultural Department, for (1) collecting more systematically agricultural statistics to enable Government to know well the actual conditions of the country, (2) paying attention to the improvement of agriculture and (3) effecting a better organization of famine relief. Accordingly, the Imperial Department of Agriculture was revived and Provincial Departments of Agriculture were established. But they were burdened with much work not properly belonging to them, such as the preparation of land records and the supervision of land registration, and further crippled by the shortage of funds at their disposal.

Dr. Voelcker, the agricultural expert mentioned above, emphasised the value of agricultural education and improvement and recommended the establishment of an organized system of agricultural enquiry. The Famine Commission of 1901 in its report put in a similar plea and urged the Agricultural Departments to pay attention to improved agricultural teaching, the promotion of mutual associations, agricultural research and experiment, enquiries regarding tillage and manure, the investigation of crop diseases and their remedies, the provision of improved seed, the experimental introduction of new staples, the improvement of cattle breeding, the investigation of cattle diseases and the development of fodder supply.

Thereupon, an Inspector-General of Agriculture was appointed to advise the Imperial and Provincial Governments, to secure co-ordination among the various agricultural departments and to give unity to the scheme of development. In 1903, an Agricultural Research Institute and a College for advance training were established at Pusa. In 1905, Lord Curzon, the energetic and able Viceroy, greatly improved the organization of the Departments, relieved them of the extraneous work with which they had been saddled, and made larger funds available for agricultural experiments, research, demonstration and instruction. In the same year, an all-India Board of Agriculture was established to bring the Provincial Departments more into touch with each other and to enable them to discuss their programmes of work at the Board's meetings and to make recommendations to the Government of India. Thereafter, better progress was made, especially as the Agricultural Departments had learnt from failures the folly of advising the cultivators to do things which they could not do and had no means of doing, such as iron ploughs, too heavy to be dragged by the weak bullocks or costly fertilizers, and the necessity of finding out the adapta-

tion that were needed to suit modern and more scientific methods to the Indian staples and climate. In 1908, an Agricultural College was started at Poona, and later similar Colleges were established at Kanpur, Nagpur, Lyallpur and Coimbatore.

The Agricultural Departments tried to improve agricultural methods on the following lines:—(1) They tried to introduce in the backward areas the agricultural practices which prevailed in the advanced parts of India. (2) They tried to improve crops, by selecting those indigenous varieties, which promised the best yield and quality, and minimising the defects in them by hybridisation on Monolism lines, and then distributing the seed as widely as possible. Attempts were also made to introduce such new varieties, as were thoroughly adaptable to local conditions. The introduction of absolutely foreign varieties would have required the improvement of the soil and other local conditions. This would have taken a long time on account of the cultivators' lack of capital and credit. The chief advantages of the improvement in the varieties of the plants were better quantity and quality of the yield and better resistance to droughts, without any appreciable increase in the cost or labour of propagation. The work of selection and propagation, however, could proceed only very slowly, on account of a large number of varieties. Moreover, the difficulties of keeping the newly evolved strains pure were great on account of the large areas in which the new seed had to be supplied and the ignorance of the cultivators. A certain amount of work on the above lines was done in the more important crops, such as wheat, rice, jute, cotton and sugarcane. (3) Research work on the nature of soils and their treatment, fertilisers, disease of crops and other similar matters was carried on at the Institute at Pusa and provincial institutes. (4) Attempts were made to improve the breeds of cattle and horses and to study their diseases at the Imperial Institute of Veterinary Research, at Muktesar. (5) In addition to the Agricultural Colleges mentioned above, Veterinary Colleges were started at Bombay, Calcutta, Madras and Lahore. It was found, however, that a majority of those who joined the colleges belonged to the middle class, had no farms of their own, on which to use their knowledge, and merely wanted employment in Government departments. (6) Demonstration farms were established in different areas, and on them the application and advantages of improved methods were demonstrated to the surrounding cultivators. On account of the illiteracy and conservatism of the cultivators, leaflets, circulars, etc., were useless for spreading information, and the only method to be relied on was ocular demonstration. Although the progress made on the above lines was encouraging, the improved agriculture did not touch more than a very small proportion of the vast agricultural population of India, on account of its poverty, indebtedness, ignorance and

conservatism, small and fragmented holdings, red-tapism of the Agricultural Departments and the inadequate funds available to them.

5. *Grant of Takavi Loans by Government.* In addition to the above efforts, Government revived the old system of granting takavi loans to cultivators by passing the Land Improvements Act in 1883 and the Agriculturists' Loans Act in 1884. Under the former Act, long-term loans for permanent improvement on land, such as wells and embankments, were granted to cultivators, and under the latter short-term loans for current agricultural needs, such as the purchase of seed, cattle, manure, implements, etc., at rates of interest much lower than those charged by moneylenders, were granted. This system, however, did not achieve much success, on account of the unpopularity of the loans for the following reasons:—(1) These loans could be obtained for particular purposes only. Hence, many cultivators did not care to lose their credit with the moneylenders from whom they could borrow for all purposes, by obtaining these loans. (2) There were great delays in securing them, on account of the red-tapism of the revenue officials, who administered the Acts, while loans could be obtained promptly from the moneylenders. (3) There was great rigidity in the collection not only of the interest, but also of the capital of the loans, and in many cases the time allowed for the repayment of the loans was too short. (4) No loans could be granted for the repayment of old debts obtained from the moneylenders or for the consolidation of holdings, without which agricultural improvement was hardly possible. (5) The system could not produce any educative influence on the cultivators, who were granted loans, on account of the great difficulty of officials regarding exercising supervision over them.

6. *Construction of Irrigation Works by Government.* Government also paid considerable attention to the development of irrigation works, the need for which was great in many parts of India, as their agriculture suffered permanently or periodically from a shortage of rainfall. Moreover, it gradually realised that even in good seasons, artificial irrigation was a necessity for the successful cultivation of some of the more valuable crops. In the earlier years of its rule, the East India Company neglected the irrigation works, such as inundation canals and anicuts, which it had inherited from its predecessors. Some of them, therefore, fell into a bad state of disrepair. After its rule was fairly well established, the Company took some interest in the problem, and followed the lines suggested by the works of its predecessors and the practice of the cultivators. First, it restored those works which had fallen into disrepair, e.g., the East and West Jamna Canals and the Kaveri and Koleroon anicuts.

Then, it constructed a few new works, such as the Ganges canal and the Godavari anicut.

Under the Crown, progress was at first retarded by the unsuccessful experiment of entrusting irrigation works, like railways, to guaranteed companies, and by the lack of a definite policy regarding the promotion of irrigation works, so that much money was wasted on a few hastily considered schemes. Nevertheless, between 1860 and 1880, some important works were taken up, *viz.*, the Lower Ganges Canal, the Agra Canal, the Sirhind Canal in the Punjab and the Khadakwasala dam near Poona. The Famine Commission of 1880 recommended a definite programme of works, and Government undertook the construction of the works itself and raised loans for the purpose. By 1895 the Sutlej and Chenab canals in the Punjab and the Lower Ganges and Betwa canals in the U. P. were completed. The establishment of the Famine Relief and Insurance Fund enabled the construction of a number of protective irrigation works in several parts of India, which were liable to famines, the most important being the Nira canals system.

The creation of the Punjab canal colonies was an important part of these developments. The object of all other schemes of irrigation was the improvement of security of cultivation that had already existed. But the Lower Chenab, Jhelum and Bari Doab canals established colonies in a vast area, which had been a desert owing to very scanty and uncertain rainfall. The colonies not only afforded great relief to the overcrowded population of the Eastern Punjab, from which the colonists were obtained, but also yielded large revenues to Government. Before the arrival of the colonists, the villages were systematically planned, the village boundaries were settled, roads were marked out, the land was demarcated into rectangles and the alignment of the water courses was made. Groups of hereditary landlords or occupancy tenants, connected by common bonds, were carefully selected by the Revenue officials and sent to the colonies, as units, to form separate village communities.⁵ Each colonist was granted inalienable occupancy rights in an area of 40 to 50 acres, and he could later convert them into alienable proprietary rights by paying a moderate price in easy instalments. Larger grants were made to well-to-do landholders, who wished to experiment in improved methods of cultivation. With the development of communications, the colonies went on prospering.

The famines that occurred in India at the end of the 19th century led to the appointment of the Irrigation Commission in 1901. Its view was that the scope for the construction of productive irrigation works, which would not be a burden upon the

⁵ See Jathar and Beri, *op. cit.*, p. 237.

taxpayers, existed only in the Punjab, Sind and Madras, which however, were not much liable to famines. It recommended that the construction of these works should, nevertheless, be pushed on, as they would yield a profit to Government and augment the food supply of the country, and that the construction of protective works should be pushed on in the Deccan and other areas, which were specially susceptible to famines, because although they could not pay their way, they would relieve the taxpayers from the heavy burden of expenditure on famine relief. It also recommended the Kistna and Tungabhadra scheme. The irrigation policy of Government was thenceforth based on these recommendations; Government, thus, reversed its policy of neglecting irrigation works and concentrating on railway expansion. The latter policy had been condemned by Mr. R. C. Dutt and others, who had maintained that it had been pursued for military reasons, and in the interests of British capitalists and manufacturers. There was much truth in this criticism. At the same time, it should be remembered that, while irrigation was necessary to increase the food supply of the country, railways also were required to distribute it equitably in the country. By 1914, however, although many projects, productive as well as unproductive, were in hand, only some of them had been completed, such as the Tribeni canal in Bihar and the Ken canal in Bundelkhand. In 1880, the total irrigated area was 29 million acres. By 1914 it had increased to 47 million acres.

Irrigation works were classified into major or minor, separate detailed accounts of capital and revenue expenditure being kept for the former only. The major works were classified into productive and protective works. The former were those which increased the cultivated area or the value of the crops so much that the payment received for the supply of water yielded a profit after meeting the running expenses and the interest on the cost of construction. The protective works were those, the income from which was not sufficient to meet the interest and the working expenses, sometimes not even the latter, but which were necessary for the protection of areas, specially vulnerable to famines. The productive works were chiefly those in the basins of the Indus and the Ganges, the inundation canals in Sind and those in the large river deltas of the Madras Presidency. Protective works were chiefly in Bombay and Madras, Deccan and Bundelkhand.⁶

The canals were of two kinds, those obtaining water naturally from the Himalayan rivers, which flowed throughout the year, the water being supplied during the dry months by the melting Himalayan snow; and those obtaining water in

⁶ See Gadgil, *op. cit.* p. 140.

Bombay, Madras, the C. P. and Bundelkhand from artificially constructed storage works, by building dams across valleys for storing rainwater during the monsoon, as the rivers in these parts, while running in torrents, during the monsoon, dried up during rest of the year. Again, the first kind of canals consisted of two types, inundation and perennial canals. The former obtained water from rivers without any barrage. Hence, they could get it only when rivers became flooded and reached a particular level, the supply varying with the actual flood level above the minimum flood level. The canals in the Punjab and Sind, drawn from the Sutlej and Indus, were of this type and could supply water for irrigation only from June to September. The perennial canals in the U.P. and Punjab obtained water throughout the year from rivers, across which barrages were constructed.

In addition to canals, there were storage tanks or reservoirs, constructed by private or Government enterprise, in areas in which the water supply depended entirely on the rainfall and was, therefore, seasonal. Dams were constructed across the upper reaches of water sources for storing monsoon water, which was supplied during the dry months. Some of these tanks were constructed long before the establishment of the British rule. This method of irrigation prevailed to some extent in all parts of the country, except the Punjab and Sind. Finally, wells were constructed and maintained by private enterprise. Government encouraged them by granting takavi loans and preventing an increase of rent or land revenue in respect of land watered by them. They were very common in the Punjab, the U.P., Madras and Bombay, for ordinary crops, and throughout the country, for garden crops.

The scope for the extension of canal irrigation was chiefly in the alluvial Indo-Gangetic plain, through which the bigger rivers flowed and in which canal construction was easy on account of the evenness of surface. In the crystalline areas in Madras, Mysore, Orissa and Chota Nagpur, storage tanks were the most suitable form of irrigation. In the Deccan, which had trap soil, canal construction was very costly, on account of the absence of big rivers and uneven surface, and wells supplied the only important method of irrigation. But even this method was costly on account of the great depth of the sub-soil water. Hence, artificial irrigation made the least progress in this area. Thus, the scope for the extension of big irrigation works by Government was limited and only half of the total irrigated area in the country was watered by Government works. The Irrigation Commission expressed the opinion that there were many parts of India, in which the greatest use of all practicable means of irrigation could not give full protection against the vagaries of the monsoon. Moreover, irrigation was not always an un-

mixed gain. It caused water-logging, a rise to the surface of the soil of salts from below, thereby lowering its fertility, and malaria, if a good drainage system was not established in the surrounding area. These evils frequently occurred in the U.P. and Punjab. The only remedy for them was a proper drainage system.

In spite of these difficulties, irrigation proved very beneficial to India. Firstly, it gave protection from famines caused by the vagaries of the monsoon. Secondly, it encouraged cultivators to invest capital in their land and to carry out agricultural improvements, by removing the fear that a drought would waste their labour and capital. Finally, it made it necessary for cultivators to take to the production of the more paying, specialised commercial crops, such as sugarcane in the Deccan and wheat in the Punjab, so as to be able to pay the water rate and high rent in respect of irrigated lands. It, thus, encouraged the commercialization of agriculture and production for the market, instead of for the home.⁷

7. The Radical Change in the Character of Famine. The development of irrigation, railways and relief operations gradually brought about a radical change in the character of famines in India and progressively reduced their importance. Apart from other considerations concerning the loss of life, sufferings of the people, epidemics, etc., this was very important from the viewpoint of agricultural progress because a severe famine had always meant a setback to this progress. Moreover, the expectation that a severe famine was bound to occur during a certain period had seriously checked the desire of cultivators to improve their land, cattle or methods, and the methods of cultivation had been the worst in those parts, which were especially liable to periodical failures of the rains.

During the rule of the East India Company, severe famines occurred in 1770, 1784, 1807, 1824 and 1837. But, its political and administrative preoccupations and commercial character made it indifferent to the problem of prevention and relief of famines. During its latter years, it partially realised its responsibilities to the famine-stricken people, but it did not do much to fulfil them. Under the Crown, severe famines occurred in North-West India in 1860, in Orissa in 1865, in Rajputana in 1868, in Bihar in 1873, in South India in 1876, simultaneously in various parts of India, including Bombay, Madras and the C. P., in 1896-7, and 1899-1900, and in the U. P. in 1907.

While in the Orissa famine of 1865, Government was slow in acting at first, in the Bihar famine of 1873, it resorted to indiscriminate charity and excessive expenditure. The South India famine of 1876-8 led to the appointment of the first Famine

⁷ See Gadgil, *op. cit.* p. 143.

Commission, and the subsequent famine policy of Government, as embodied in the Famine Code, was based largely on its recommendations. An annual Famine Insurance Grant of Rs. 1½ crores was provided, to be spent on relief; if there was a famine, and to be spent on construction of irrigation works, if there was no famine; the construction of railways in areas liable to famine was pushed on; famine relief was given to the able-bodied in the form of work at relief works, at wages adequate for the maintenance of health, and gratuitous relief to the old and sick in their villages, and assistance was given to the cultivators by the suspension or remission of land revenue and by the grant of takavi loans.

The widespread famine of 1896-7 led to the appointment of the second Famine Commission which recommended certain amendments to the famine codes. In 1901, the last Famine Commission recommended that moral strength should be given to people to fight famines, by giving them takavi loans quickly and liberally, that the fullest use should be made of non-official help, that programmes of test works and relief works should be kept ready, that co-operative societies should be started and that the construction of irrigation works should be extended. The adoption of these recommendations proved very useful in subsequent famines. The extension of irrigation meant a progressive decrease in the liability of areas to famines; the extension of railways, which could relieve the deficiency of food in one part by carrying the surplus of other parts to it, meant the replacement of food famines by employment famines; and the extension and improvement of famine relief meant that Government sufficiently relieved unemployment famines by providing employment. This had a favourable reaction upon agricultural progress.

8. *Tenancy Legislation.* Government had to give protection to the peasants not only against famines, but also against landlords and moneylenders. Most landlords took interest in their land only to the extent of obtaining a maximum rent for it. They had to be satisfied with low rent in the early decade of the 19th century, because the depopulation caused by warfare compelled them to bid against each other for tenants, and because, on account of the disturbed conditions of the country, they had to depend on their tenants for defence and had, therefore, to keep them contented. The establishment of law and order and the growth of population made it unnecessary for them to continue this policy. Hence, they began to exact more and more from their tenants either by raising the rent, or more frequently by adding new levies to the old rent. The ignorant peasants, who did not know of any alternative occupation, and the growth in whose numbers was not checked so long as the barest subsistence could be obtained, went on competing with

each other for the land at higher rents than they could afford to pay. This led to rack-renting and heavy indebtedness.

Government had, therefore, to intervene and to control the relations between the landlords and their tenants by passing the Bengal Rent Act of 1859, which was later amended by the Bengal Tenancy Act of 1885. The Act allowed a small number of tenants to hold land at fixed rates of rent, and provided that every tenant, who held any land in a village for 12 years, should be given a right of occupancy and that the remaining tenants should be tenants-at-will. The protection given by the Act to the first category of tenants was that their rent could not be increased at all; that to the second category was that rent could be increased by a court decree only, on the grounds that the price of the produce had risen or that rent for similar land in the neighbourhood was higher, both the grounds being difficult to prove; and that to the third category was that they could not be ejected except in execution of a court decree and that their rent could be increased by a court decree only by a certain proportion and after certain periods. More than 4/5 of the tenants in Bengal secured occupancy rights under this legislation. Although the provisions of the Act were evaded to a certain extent by the landlords, these checks on their powers did make the cultivators feel a greater sense of security and freedom. Similar Acts were passed later in the U.P., C.P., and Madras.

9. Indebtedness of the Peasants and their Protection from Moneylenders. To turn to the protection of peasants against moneylenders. Even before the British rule, the vagaries of the monsoon, the unbusiness like methods of the peasants and the necessities of social, unproductive expenditure had made them run into debt, but the extent of indebtedness had been strictly limited by the facts that the peasants had little hope of obtaining a surplus from which to repay their debts, that land being abundant relatively to the population, they had practically no security to offer, and that the lenders had no sure means of enforcing the recovery of loans upon defaulting borrowers. But the establishment of law and order, the fixing of the revenue demand at a moderate level, the bestowal on the tenants of the rights of occupancy, fair rent and freedom to sell the rights, the grant of rights of free transfer and absolute ownership to the peasants, especially in the ryotwari areas, the growth of population, the increase in trade and the rise of prices under the British rule not only gave the land a salable value, but also the value went on steadily appreciating. With the resulting expansion of their credit and feeling of prosperity, the ignorant and thriftless peasants were unable to check the temptation to go on borrowing more and more heavily.

The shrewd moneylenders went on obtaining control over

the peasants' produce that was increasing in quantity and value, without undertaking the responsibility of cultivation. On the increased security of land, against which the British Indian law courts were prepared to take out execution of decrees; for the recovery of debts, and under cover of the new enforcement of the sanctity of contracts, which the peasants were not able to understand, the moneylenders were willing to lend them almost as much as they wanted to borrow. The facilities available to the peasants for borrowing increased with the increase in the number of moneylenders, who were attracted to this business by the advantages offered to them by the newly created legal and judicial systems, and those peasants who had the best security to offer became the most heavily involved in debt. But the increase in the value of the security brought no reduction in the high rates of interest charged on the debts. The moneylenders took full advantage of the helplessness of the peasants and their increasing competition for loans, to maintain high rates of interest, which proved to be most burdensome.

Moreover, the moneylenders began to deprive their peasant debtors of the latter's proprietorship of land. The transfer of the ownership of land would not have mattered much had the new owners been agriculturists themselves. But in most cases they were not, and the transferred land continued to be cultivated by the former owners, whose position became very precarious, and who, in spite of hard work each year, became dependent for mere subsistence on the clemency and reasonableness of the new owners. The latter appropriated to themselves all the profits of cultivation; and deprived the former of whatever incentive they might have possessed before, for careful cultivation. The dispossession of the peasants did not bring about a consolidation and an enlargement of the unit of cultivation in India, as it did in Europe. It merely altered the distribution of the profits of cultivation. If the unit of cultivation was to remain very small, cultivation by peasant proprietors was far more advantageous than that by tenants.

The situation was made far worse by the fact that most of the new owners refused to grant long leases to the previous owners and made them tenants-at-will. The numbers of landless agricultural labourers, the most vulnerable part of the agricultural communities in a period of stress, went on swelling from this class of tenants-at-will⁸. To check these evils, acts were passed in some provinces, the most important being the Punjab Land Alienation Act of 1901, to restrict the transfer of land from agricultural to non-agricultural classes. The Acts were called the Magna Charta of the agriculturists. This legislation, however, was followed by the rise of an unexpected evil, viz.,

⁸ See Gadgil, *op. cit.* p. 166.

the advent of the agricultural moneylenders and the growth of their influence. As the restrictions of the legislation did not apply to them, they began to expropriate their brother agriculturists as cunningly and ruthlessly as the non-agricultural moneylenders had done. This evil was dealt with only after 1914. The legislation, therefore, did not check the evil of indebtedness to any extent. The only way to cure the evil was to impose healthy checks on the objects for which cultivators used their credit, and to enable them to realise it on reasonable terms. This could not be done by legislation. The remedy that proved successful in Europe was the development of the co-operative credit system and the spread of the co-operative spirit among the cultivators. Accordingly, as mentioned before, the co-operative movement was started in India in the opening years of the new century for the benefit of the cultivators, but had made small progress by 1914.

10. *The Sub-division and Fragmentation of Holdings.* An important cause of the increasing indebtedness of the peasants was the fact that a large proportion of their holdings was so small as to be uneconomic. This was due to their sub-division from one generation to another. Moreover, they were fragmented into a number of strips of land. In many provinces, many holdings did not exceed 2 or 3 acres in size. An economic holding could be defined as one which enabled a peasant and his family to produce enough on it to maintain themselves on a reasonable standard of comfort, after paying all necessary expenses. The size of such a holding depended upon the nature of its soil, the kinds of crops grown on it, its proximity to markets, transport facilities to it, etc. Unfortunately, many holdings in India were too small to give remunerative employment to all the labour of the cultivators' families. But as alternative occupations were not available, all the labour had to be devoted to the small holdings, which could not give a sufficient return for the maintenance of the families.

The small holdings, each fragmented into narrow strips of lands, situated at some distance from each other, involved considerable waste of time, labour, capital and land. A holding might be too small to use fully even such poor equipment as a pair of bullocks and a plough. The employment of labour-saving devices such as tractors, threshers, winnowers, etc., was out of the question. The several strips had no fences, as the cost of fencing them would have been prohibitive. Hence, enterprising peasants of a village could not adopt a new system of cultivation or a new rotation of crops apart from the others, as their crops would have been damaged by cattle straying from the neighbouring harvested fields. Again, a lot of land had to be wasted in boundaries and paths. Moreover, even if abundant sub-soil water was available in a field, the construction of a well in it

often could not pay the owner, as his other fields were distant, or as his holding was too small. Further, there was great waste of time, labour and cattle power in going from one field to another. It was also impossible for the cultivator to stay on his holding, to make cultivation efficient and to protect the crops. His farmyard manure was wasted, as he could not keep his cattle on his holding. Furthermore, there were frequent quarrels about the boundaries of fields and the rights of way, and these often led to prolonged and costly litigation. Finally, even if adequate water was available, irrigation often became difficult, on account of the distance between the fields making up a holding, and the necessity of constructing water channels through the fields of others⁹.

Of the two, sub-division of holdings was a greater evil than their fragmentation, because even if the fragmented holdings were to be consolidated, they would have become fragmented once more in course of time, owing to fresh sub-division. Both were the result of several causes operating together, such as the growth of population, the decline of handicrafts, the lack of industries, the Hindu and Muslim laws of equal inheritance, the growth of the spirit of individualism and the break-up of the joint family system. Although in some countries of Europe, laws of equal inheritance prevailed, the evils mentioned above were checked by the practice of holding the property jointly among the sons instead of dividing it, while one of them farmed it and paid rent for it to his brothers. Such practice could not prevail in India, because alternative occupations were not available to the sons of a farmer. Hence, all of them had to insist on their share of the parental holdings and as the joint families were dissolved the holdings became sub-divided and fragmented. The remedies for the evils, such as consolidation of holdings by co-operative means, legislation for preventing sub-division and fragmentation, development of industries, etc., were considered, but nothing was done up to 1914.

11. *The Inertia of the Peasants.* Finally, the peasants needed protection against their own inertia. Most of them made a poor response to the stimulating influences, mentioned before, that were operating round them. Most of them chose to use their greater earning power, resulting from rising prices, to enjoy greater leisure, and not to improve their farming methods. The attempts of the Agricultural Departments to teach them improved agricultural methods did not influence much the agricultural practices of most of them. Professor Carvour's statement that "communities have remained poor in spite of the fertility of their soil and the abundance of their natural resources, merely because the human factor was of poor quality or was allowed to

⁹ See Jathar and Beri, *op. cit.* p. 207.

deteriorate or to run to waste," was very applicable to the Indian agricultural community. Moreover, on account of the vagaries of the monsoon, the cultivators had an exaggerated feeling that produce of their farms had little relation to their efforts. What was needed was education of the right sort. But the education that was offered was unsuitable and ineffective, being used merely for seeking employment in the Agricultural Departments, and not for creating a class of educated farmers, prepared to apply the knowledge acquired in agricultural schools and colleges, to their own farms.

12. The Change in the Character of the Villages. The revolution in transport, brought about by the railways, steamships and roads, destroyed the isolation of the Indian village, and transformed the organization of the village community and its economic life. It enabled the British to substitute administrative centralization for the old village autonomy under which the old rulers had made the village community, with its panchayat, or a big landlord responsible for the payment of land revenue and the preservation of local order. The administrative centralization took the form of the establishment of a gradation of civil and criminal courts, police and revenue departments, taluka and district boards, and the rayatwari system of land tenure. The growth of individualism and individual legal right also weakened the corporate life of the village. The village, however, retained sufficient vitality and corporate life to become the primary unit of the new administrative system, and the village headman and accountant became the lowest officers in hierarchy of the bureaucratic system. The village, however, lost its self-sufficiency and became dependent on the outside world, for obtaining the various articles, mentioned before, which now formed a part of its changed standard of life resulting from Western influences as well as for disposing of its commercial crops and the surplus of its food crops.

The removal of the isolation of the village and its connection with outside world meant that, on the one hand, famines of food gave way to famines of employment and that, on the other the danger of ruin from local glut was removed by the practicability of selling the village produce in distant markets. Such sales as well as the remittances of those who accepted employment temporarily away from the village, brought money into the village, and enabled villagers to pay wages, interest on debt, rents, land revenue, taxes, remuneration for services; etc., in money instead of in grain. Money economy, thus, became universal. With the growth of communications, the population of the village lost its immobility and fixity of occupations, especially if the village was not very distant from an urban centre, and the villagers migrated in batches to factories, mines, public works, etc., for intermittent work there. Hence, the influence of

caste and status became much less. The force of custom went on diminishing and that of competition, increasing. Rents went on increasing and the tenancy legislation, as explained before. Competition also influenced wages, with the new mobility of labour, the demand for it elsewhere and the introduction of cash wages. Competition influenced prices, with the linking up of the demand and supply of the village with those of the outside world. These forces, however, operated more slowly in the Indian village than in the Indian town; and much more slowly in the former than in Western Europe.

13. *The Change in the Position of the Village Artisans.*

The position of the village artisans also changed considerably. The receipt of customary dues in kind for the whole year and the cultivation of a plot of land played a diminishing, and the receipt of cash wages for particular jobs an increasing, part, in their income. This was the result of the fact that the facilities provided by improved transport for getting articles from outside made the continuous presence of some of the artisans in the village unnecessary for the satisfaction of all its needs locally. Moreover, improved transport developed a tendency among artisans to migrate in search of higher earnings elsewhere and to concentrate themselves partially in larger villages and towns. In each village, those artisans remained, whose services were quickly required to meet the urgent needs of the peasants or whose goods could not be easily transported. Thus, the blacksmith and the carpenter might be required any moment in the village to repair an agricultural implement; the potter's fragile articles could not be brought from a distance; and the leather worker's presence was required in those villages in which leather buckets were used for well irrigation. But weavers, dyers and goldsmiths tended to be concentrated in the larger villages and in the towns, as the peasants' demand for their wares could be postponed, and as the wares could be brought easily from a distance. Those artisans, whose economic condition was depressed by the competition of foreign or Indian factories, either migrated to towns to a limited extent, or became day labourers to a far greater extent. Finally, some of those artisans, who had improved their economic condition a little, abandoned their hereditary occupations and became agriculturists entirely. There was very little change in the organization and the method of working of the village artisans generally. There was some improvement in these matters, only as regards those who became concentrated in the larger villages and the towns.

The fortunes of some of the village artisans suffered a heavy decline on account of the changed circumstances. Hand-spinning almost disappeared. The dyer was adversely affected by the import of aniline dyes and the use of dyed mill-made yarn by the weaver. The latter suffered from the

competition of Indian and foreign factories. After the mill industry had captured as great a portion of the market as it could, a sort of equilibrium was reached, and the further decay of the handloom industry was slow. Its chief decline took place in the country. Wherever the weavers were found in an appreciable number, they were fairly well organized on the commercial side. They had no other occupation and stuck to their craft tenaciously. Hence, the handloom industry continued to be the biggest and most widespread in India. In 1914 it was estimated that about 6 million weavers were working on about 3 million handlooms and earning annually about Rs. 50 crores gross¹⁰.

The blacksmith and the carpenter suffered from the increasing use of iron ploughs, crushers and other improved implements. Those of them, however, who migrated to the towns, benefited, because there was an increasing demand for them there, in engineering work-shops and in the building and furniture industries. The potter was adversely affected by the increasing use of brass, copper and enamelled vessels. The oilman's lot became very difficult with the expanding use of kerosene in the village, the export of oilseeds and the expansion of the oilseed crushing industry in towns. The village tanner was hit hard by the facts that, on account of the rise in the price of hides and skins the agents of the exporters or city tanneries took them away, and that the imports of tanned hides went on increasing.

Generally speaking artisans abandoned their hereditary occupations only when they were compelled to do so by circumstances. Thus, on the whole, the village industries decayed and the position of the village artisans deteriorated. A small proportion of them improved their position by migrating to towns, whose industries absorbed them. Another small portion took to agriculture. A large proportion were compelled to become day labourers. These, as well as most of those who stuck to their hereditary occupations were the first to seek relief in a period of famine. Of the latter, the weavers flocked the earliest to public relief works, and suffered the most as they were absolutely unused to such work. Many of them lost their skill during such a period and found it very difficult to regain it later¹¹.

¹⁰ See Indian Industrial Commission Report, para. 256.

¹¹ See Jathar and Beri, **op. cit.**, p. 147 and Gadgil, **op. cit.**, p. 185.

CHAPTER XI

THE EVILS OF THE FACTORY SYSTEM: FACTORY LAWS: TRADE UNIONS: SOCIAL INSURANCE

1. *The Evils of the Factory System.* It is a disconcerting fact that, in most countries, man's growing conquest over nature, by the invention and elaboration of machinery and development of capitalistic methods of production, instead of lightening the labour and enriching the lives of workers, tended for many years, after the Industrial Revolution, to cause their exploitation and to inflict various direct and indirect sufferings upon them. The temptation of ill-paid, helpless and submissive labour, used to long hours of toil and a very low standard of living, proved too strong for many factory and mine-owners, who secured enormous profits by the terrible sweating of men, women and children. They were also encouraged to pursue this policy by the prevalence of the doctrine of *laissez faire*, which laid down that they should be free to manage their own affairs, without any interference from the State. Britain being the first country to be revolutionised industrially, was the greatest culprit, as well as the greatest sufferer, in this respect. It was, however, also the first and foremost country in the adoption of ameliorative measures for the protection of its industrial workers.

The factory system resulted in terrible evils at first in most countries. Women and children were brought into the factories, because they could operate the new machines as well as men, were far easier to control and would work for lower wages. Even before the system came into existence, many children had to work for their living, but their masters had generally been their parents, who had some, even though not enough, regard for their welfare. But when they were made to work in factories, shocking conditions developed. The pauper children from the workhouses in Britain, in particular, were absolutely helpless in the face of exploitation, and were literally worked to death in hundreds in the new factories. The authorities of the workhouses were glad to get rid of them, and the factory owners were glad to obtain extremely cheap as well as submissive labour. Children, 5 years old, were made to work for 13 hours a day, throughout the week, and children a little older, for 15. But their weekly wages were no more than 18 pence. They had to operate the machines standing and stooping, and grew deformed from the constant repetition of their movements. They were made to work night and day in relays, succeeding one another in the same beds. Many had no regular meal-times, and had to eat their scanty food on the floor near the machines. The

factories and the barracks, in which they were housed, were filthy, over-crowded, lacking in proper ventilation and lighting, and the children, terribly overworked and harshly treated, died in hundreds.¹ The machinery was not fenced and guarded, and mutilated or killed many more hundred. Sheer exhaustion caused many accidents. Women were employed not only for the same long hours and for night work, but also on coarse and heavy work, that brutalized as well as exhausted them.

In mines, children were made to work as trappers and fillers from the age of 5. Trappers had to sit in the dark for twelve hours at a stretch, to open and shut ventilating doors. Fillers had to crawl through the narrow tunnels, pushing or hauling the trucks filled by the hewers at the coal face. Women were made to work with the girdle and chain, to within an hour of the birth of their babies. Most of them were treated with considerable brutality. Numerous babies and young children died of neglect, because their mothers working for long hours in factories or mines, could not care for them. Many factories were no better than prisons, in which men, women and children laboured prolonged hours, relieved only by insufficient sleep in filthy homes and toiling until they developed deformity and disease, particularly tuberculosis, and in many cases died early.

2. *Factory Laws in Britain.* The movement for enacting factory legislation was the first indication of a reaction against the economic liberalism that had prevailed in Europe in the early years of the 19th century. It was thought that the protection of the State might be claimed for the helpless women and children, although it could not be demanded for adult men, consistently with the principle of individualism. The early factory laws, therefore, gave a measure of protection to women and children only. The men, who sponsored them, had no intention of opposing the public opinion in favour of the individualist doctrine. They were merely practical reformers, and not social philosophers. They hated to be called socialists. Nevertheless, factory legislation gave the first and biggest check to individualism, and started the socialistic tendency, which gathered strength with the passage of years, and led to a manysided programme of social amelioration.²

The first Factory Act in Britain was passed in 1802 at the instance of Sir Robert Peel, the elder, himself a mill-owner, for giving some protection to the ill-treated and overworked parish apprentice children in mills. It limited their working day to 12 hours, and made some provision for their education and for the sanitation and comfort of their barracks. But it contained no adequate provision for its enforcement. Hence, in 1819, Peel, with the help of Robert Owen, another millowner, got a second

¹ See Ogg, **Economic Development of Modern Europe**, p. 357.

² See Birnie, **op. cit.**, p. 199.

Factory Act passed. It prohibited the employment of children less than 9 years old in cotton mills, and restricted the hours of work of children under 16 to 12 per day. But no adequate steps were taken to put this act also into force. From 1830, the problem of factory reform ceased to be in the hands of individual reformers and engaged the attention of the public. A Royal Commission issued a sensational report regarding the wretched conditions prevailing in factories, and an effective Factory Act was passed in 1833, to apply to all textile factories. It prohibited the employment of children under 9, restricted the hours of work of children under 13 to 9 per day, those of young persons under 18 to 12, prohibited night work, and provided for the appointment of factory inspectors, for the enforcement of its provisions.

The passage of this Act was followed by an agitation for 10 hours' working day. Although the Act of 1844 failed to provide for it, it extended legal protection to women, restricting their daily hours of work also to 12, and provided for the fencing of dangerous machinery. The daily hours for women and young persons were limited to 10 by the Act of 1847. But the expectation that the hours of adult men workers would be automatically reduced to this level, was not realised, because the mill-owners introduced a relay system, which enabled them to keep the machinery running for 12 hours or more, but which kept the women and children hanging about the factories during the intervals between work. Hence, the Acts of 1850 and 1853 fixed the hours during which women and children could be employed at 12 hours, from 6 a.m. to 6 p.m. or 7 p.m., out of which at least $1\frac{1}{2}$ hours had to be allowed for meals. This stopped the relay system and gave the adult men workers the benefit of 10 hours of work, for which they had been agitating for considerable time. The millowners then formed an association to secure a repeal of this legislation, but they were not successful, and their opposition gradually disappeared, when they found that the reduction of the working hours had not reduced the output, on account of better concentration on work by the workers. In 1842 mines were brought under control and the employment of women and children underground was prohibited.

By the sixties the necessity of factory legislation was admitted by all, and afterwards the laws were extended from textile factories to the large workshops, then to a number of new industries, such as blast furnaces, metal works, paper and printing works, then to small workshops employing less than 50 workers and finally to home workers. The successive Factory Acts stiffened and elaborated the existing provisions regarding safety, sanitation, ventilation, etc., and raised the age of admission to industry to 10, with half time provision until 13. In 1878, the entire complicated mass of legislation was consolidated. Two

points may be mentioned about this history of the laws. The first was the absolute necessity of trained administrators to carry them out; the second was that from protecting the weakest, the pauper apprentices, the *laissez faire* British Government was led on by logical necessity, from one point to another, until it gave a substantial measure of protection to adult male workers also³.

The Act of 1891 raised the minimum age for employment from 10 to 11 and handed over to the trained administrators of the Home Office, the power to make detailed regulations. The Act of 1901 raised the minimum general standards of sanitation, ventilation and cleanliness, further tightened up safety regulations, raised the minimum age of employment to 12, made certificates of fitness compulsory for young persons under 16 and regulated meal-times. In 1903, the Children Act applied the relevant parts of the Factory Acts to child workers outside factories, and prohibited night work, subsidiary employment for half-times of and employment unsuitable to children's health and strength, such as the lifting of heavy weights and the handling of poisonous materials. In 1908, an 8 hours' day was laid down for miners.

3. *Factory Laws in Germany.* As regards Germany, factory legislation was enacted first in Prussia 1839 after prolonged agitation. The Factory Act of that year prohibited the employment of children under nine, limited the hours of young persons under 16 to 10 per day, and laid down that they should spend 5 hours per day at school. This law was largely violated by employers, as no inspectors were appointed to enforce it, the enforcement being left to the police and educational authorities. As the employers vigorously opposed the appointment of inspectors, the Act of 1853 established only a permissive system of factory inspection. It also raised the minimum age at which children could be employed to 12, and limited the hours of children under 14 to 6 per day. Inspectors were appointed only for three highly industrialised areas, and elsewhere the law continued to be violated.

With the establishment of the Empire, the Prussian factory legislation was extended to the other States, but the permissive and, therefore, ineffective system of factory inspectors was continued. But public opinion insisted on a universal and compulsory system of inspection, and the Reichstag provided for it in the Factory Act of 1878, in spite of the opposition of Bismarck. The latter, however, prevented its effective enforcement by administratively prohibiting the inspectors from taking action against owners of factories, without the permission of the higher authorities. It was only after the fall of Bismarck and on account of the interest taken by the

³ See Birnie, *op. cit.*, p. 204, and Ogg, *op. cit.*, p. 368.

young Emperor, William II, that the Factory Act 1891 was passed, raising the minimum age for employment to 13, limiting the hours of work of women, children under 16 and those under 14, to 11 (reduced to 10 in 1908), 10 and 6 respectively, and re-organizing and expanding the system of inspection. But the enforcement of the law by launching prosecutions, etc., was left to the police, and the inspectors could only report and recommend to them⁴.

4. *Factory Laws in the U. S. A.* In the U. S. A., according to the constitution, the States were responsible for passing laws for the protection of the workers. Before the Civil War, there was little activity in this direction, beyond the passing of laws in some States, limiting the hours of work of children and women. After the Civil War, laws were passed in most of the States limiting the hours of work of women and children, providing for their health and comforts, and free education for the children, protecting workers engaged in dangerous occupations or in sweated industries, and providing for the inspection of factories.

5. *Factory Laws in India.* India, like several other countries, endeavoured to learn from Britain's experience regarding the evils of the factory system, and to check the forces of undiluted individualism and competition, before the evils engulfed the Indian workers, who were more helpless than their fellows in other countries. India, however, endeavoured to do this in rather a halting manner, and could have profited more from Britain's example.

The Industrial Revolution in India reproduced from the sixties of the last century some of the most unfavourable aspects of the Revolution in Britain in the early years of the century. The doctrine of *laissez faire*, although losing ground in Britain, was in full force in India at that time. In the Bombay cotton factories, women and children were employed in large numbers, many of the children were hardly 8 years old, all of them had to work from sunrise to sunset, with only half an hour's recess, and they had no periodically recurring day of rest. The Governments of India and Bombay and a large section of Bombay public opinion, therefore, were in favour of passing a fairly stringent Factory Act. But owing to the strong criticism and protests of a number of commercial bodies, supported by the Lieutenant-Governor of Bengal the Indian Factory Act of 1881 was passed in an attenuated form. It was applicable to all manufacturing premises using power-driven machinery, employing 100 or more persons and working for more than 4 months in the year. Employers were prohibited from engaging children below the age of 7, and from making children between 7 and 12

4 See Birnie, *op. cit.*, p. 211.

work for more than 9 hours on any day. Four holidays every month were made compulsory for them. It also provided for the fencing of dangerous machinery, the reporting of the accidents, and the appointment of special factory inspectors, if necessary, the district officers being ordinarily expected to enforce the provisions of the Act, without any addition to their staff.

It was soon found that the Act was inadequate for dealing effectively with the abuses in the factories, especially as the smaller factories had not been brought under its operation, and as it contained no provisions for sanitation and ventilation, and for the regulation of the labour of women. The Commissions appointed by the Governments of Bombay and India in 1884 and 1890 recommended further legislation. The Bombay workers were becoming active now and presented their demands. So in 1891, another Factory Act far in advance of the Act of 1881, was passed and it reduced the number of persons required to constitute a factory under the Act to 50, and empowered Provincial Governments to reduce the number to 20, provided weekly holidays and a compulsory recess of half an hour at mid-day, limited the hours of women to 11 per day, except when the women workers themselves desired exemption from this limitation prescribed a recess of 1½ hours for them, and prohibited their employment at night, fixed the minimum age of children who could be employed at 9, made the certification of their age compulsory, limited the hours of work of children between 9 and 14 to 7 during day light, and prohibited their employment in dangerous occupations. It made an extensive provision for inspection and the imposition of penalties for infringement of the Act, and empowered Provincial Governments to make rules for the ventilation and sanitation of factories.

The fairly rapid industrial advance in India made this Act also inadequate in a few years. The Lancashire cotton and Dundee jute manufacturers protested against the evils that still prevailed. Protests were made in the Indian press also. Another Labour Commission made certain recommendations in 1907 and a third Factory Act was passed in 1911. It limited the hours of adult male workers in textile factories only, and not in any other factories, to 12 per day and between 5-30 a.m. and 7 p.m., unless an approved system of shifts was in operation. It reduced the hours of children in textile factories to 6. The employment of children before 5-30 a.m. and after 7 p.m. was prohibited in all factories. The hours of women were maintained at 11 but the recess was reduced to an hour. Their employment before 5-30 a.m. and after 7 p.m. was prohibited in all factories, except ginning and pressing factories. It brought under its operation also those seasonal factories, which worked for less than 4 months in the year. Lastly, it contained a number of

new provisions relating to the health and safety of the workers, and for making inspection more effective. However, the definition of a factory remained the same under the new Act as under the Act of 1891.

The work of administering the Acts was entrusted to the Provincial Governments, mainly through qualified factory inspectors. Their number was gradually increased, the administration of the Acts improved, and the number of prosecutions under them increased. The Provincial Governments were also empowered to frame rules under the Acts.

Protective legislation for miners was much slower in coming than that for factory workers. The first Mines Act was passed in 1901 and provided merely for the safety of the miners and for the appointment of inspectors. Further legislation for miners as well as legislation for compensating workers for accidents was enacted only after 1914.

6. *Trade Unions in Britain.* The evils of modern industrialism and the factory system brought the trade union movement into existence. When the development of capitalist production deprived the workers of all prospects of becoming masters, and when they realized that they had to remain dependent wage-earners throughout their lives, that personal relationship with their employers was replaced by impersonal and cold-blooded bargaining and that they were no match for their employers in this bargaining, they began to combine with each other into trade unions for self-defence. The movement developed first in Britain, which was the first country to pass through the Industrial Revolution. The ruling classes, however, panic-stricken, on account of the excesses of the French Revolution, attempted to suppress it by passing the Combination Laws 1799 and 1800, under which workers who joined a trade union or took part in a strike, could be tried summarily, and on conviction, sentenced to three months' imprisonment. Moreover, under the common law of conspiracy, members of a trade union were liable to be tried as conspirators and to be punished by heavy sentences of imprisonment. Although many prosecutions took place under these laws and there were many cases of injustice and oppression, the trade union movement did not disappear, owing to the inertia of the employers and the inefficiency of the police.⁵ The above laws, however, handicapped the growth of the movement seriously for many years. In spite of this, its revolutionary leaders cherished the idea of forming a single gigantic union for all the workers in the country. Several attempts were made to carry out this idea, the most notable being the creation in 1834 of the Grand National Consolidated Trade Union, under the guidance of Robert Owen. All these

5 See Birnie, *op. cit.* p. 141.

attempts failed, because heterogeneous elements had different grievances and could not concentrate on a common policy.

This failure was followed by the emergence of a new type of union and a new type of leader. The earliest and best example was the establishment of the Amalgamated Society of Engineers in 1850, comprising the skilled workers of half a dozen small engineering crafts in the whole country. It collected large funds by means of substantial subscriptions and used them for supplying friendly society benefits to members, such as sickness and unemployment allowances, as well as for conducting trade disputes. Many unions were formed on this model in the fifties and sixties. Moreover, the leadership of the movement was now taken up by men, who far from cherishing revolutionary doctrines, held moderate, even cautious views, possessed superior capacity for business administration, discouraged strikes, and depended chiefly upon friendly negotiations with the employers and legislation, for improving the lot of the workers. They established the movement on sound lines.

The Trade Union Act of 1871 gave trade unions the right to sue in law courts, so that henceforth, for example, they could prosecute a dishonest official for embezzling their funds. At the same time, it exempted them from liability to be sued; if they had been held responsible for all that their members did in moments of excitement and made to pay damages, their funds would soon have become exhausted. The Conspiracy and Protection of Property Act passed in 1875 placed definite limits on the application of the law of conspiracy to industrial disputes. These two acts proved very beneficial to the trade union movement.

In the eighties a "new unionism" came into existence for organizing the unskilled workers. The unions charged low subscriptions, because the wages of their members were far from high. They, therefore, gave no friendly society benefits. Being unhampered by the benefits and the large funds, they, unlike the old unions, could pursue a bold industrial policy and declare strikes if necessary. This led to the establishment of many general labourers' unions and increased greatly the numbers of organized workers.

The Trade Disputes Act of 1906 made it absolutely clear that trade unions were not suitable in courts of law, as in the opinion of the courts, the Act of 1875 had not made it quite clear. In 1913, the collection of political levies by trade unions from members was made legal, but conscientious objectors were permitted to contract themselves out. By 1914, the trade unions in Britain had a total membership of 4 million. Further, there came into existence a tendency towards federation and amalga-

mation among unions, and the replacement of the old type of craft unions based on industries.⁶

7. *Trade Unions in Germany.* Until 1869, workmen's combinations were illegal in Germany. It was only in that year that workmen, excepting agricultural labourers, seamen and domestic servants, were given the right to combine. The trade union movement then began to develop in Germany. But its growth was hampered up to 1914 by the existence of reactionary laws against public meetings and associations. The connection between the movement and politics was much closer in Germany than in other countries, and the trade unions could be grouped into the following three classes according to their political connections:—(1) The socialist unions were the largest and most powerful class. Their progress was hampered in 1878 by the passage of the anti-socialist law, which prohibited all forms of socialist activity, but with its repeal in 1890, their prestige and progress improved much, and they formed themselves into a federation. (2) The liberal unions, also dating from the sixties, formed the smallest group. On the lines of the older English unions, they discouraged strikes, depending chiefly on friendly negotiations with the employers, believed strongly in thrift and self-help and gave substantial sickness and unemployment benefits. But the benefits became less attractive to the workers, when the State introduced a system of social insurance. (3) The Christian unions were formed for the benefit of Catholic workers, whose faith and morals were to be protected from the irreligious socialists and liberals. Their policy regarding relationship with employers was similar to that of the liberal unions at first, but later many of them became aggressive, and joined the socialist unions in organizing strikes.

In addition to the above aspects, German trade unionism had two special ones. Firstly, most of the unions were based on industry and not on craft. The concentration was most pronounced among socialist unions, which numbered 47 only, with 2½ million members. In 1912 the total number of unions in Germany was 400, with a membership of 3 million, as against 1000 unions in Britain with the same membership. The reasons were the German workers' discipline and capacity for organization, resulting from their being citizens of a bureaucratic and military State, and the necessity of remaining united against their employers, who were strongly organized in Cartells. The second aspect was that collective bargaining, i.e., treaties between workers and employers, determining wages and other conditions of employment for long periods, was developed much less in Germany than in Britain. The reasons were the unwillingness of the employers to deal with unions and the Marxian

6 See Birnie, *op. cit.*, p. 148.

view that such bargaining was useless. Just before 1914, however, both these reasons became less important and the number of collective agreements increased.⁷

8. *Trade Unions in Russia.* In Russia, the tradition of autocratic paternalism was strong. Hence, the State, while undertaking to protect the vital interest of the workers, refused to allow them to form trade unions, to protect themselves. Its repressive policy not only delayed greatly the development of trade unions, but also made them as much political as economic organizations. In fact, some of them sprang from the blood-stained secret societies. The Russian Government's fear of them was political rather than economic, as that of the British Government at the beginning of the 19th century, leading to their repression. But while trade unions in Britain developed largely from friendly societies, such a development was not possible in Russia, with its autocratic paternalism. Hence, the trade unions in Russia were fighting bodies from the beginning. In spite of repression, they arose continuously, but disappeared as suddenly, after police raids and imprisonment or transportation to Siberia. The upheaval of 1905 led to the passing of a law in 1906 allowing the trade unions to exist as economic bodies, but prohibiting strikes. Nevertheless, strikes occurred and were regarded as sedition.⁸

9. *Trade Unions in the U.S.A.* The progress of trade unionism in the U.S.A. was inconsiderable. In 1869, a secret society called the Knights of Labour was formed to include all classes of workers throughout the country. But it hardly achieved anything and was replaced in 1886 by the American Federation of Labour, consisting of skilled craft workers, and working on conservative and conciliatory lines. On account of disgust with this policy, a revolutionary body, called the Industrial Workers of the World, was established in 1905 for uniting skilled and unskilled, native and foreign, workers. But it had little success. The absence of an effective trade union movement in the U.S.A. was due to the following peculiar features of the country's industrial and political position: (1) The American workers obtained good wages, enjoyed a high standard of comfort, hoped to rise in the world and, therefore, were not hostile to the capitalistic system and the employers. Moreover, they had good opportunities for changing their industrial occupations and for migrating to the West and becoming farmers, if they became discontented with their prospects as industrial workers. (2) The American workers could not acquire political power, because the two great political parties, the Republican and Democratic, were too strongly organized to give any chance of success

⁷ See Birnie, *op. cit.* p. 158.

⁸ See Knowles, *op. cit.* p. 186.

to a third party. (3) Labour laws and standards varied much from State to State, as according to the American Constitution, labour questions were entirely in the purview of the States. Hence, it was very difficult to make national unions successful, and unions were mostly local, often confined to single towns. (4) Many of the workers were European immigrants, coming from different countries, speaking different languages, wishing to return to their home countries and unwilling to help their fellows by strikes, which would deprive them of their wages even for short periods. (5) Mass production in American industries was carried on by a small class of very highly skilled and well-paid workers at the top and a large class of unskilled immigrants, who could change their occupations easily. The latter could not hold out against their employers for a considerable time. Moreover, they could not combine with the aristocratic workers at the top.⁹

10. *Trade Unions in India.* In India, there were no trade unions proper up to 1914 owing to the illiteracy, low wages and the migratory and heterogeneous character of the industrial workers. But the labour movement may be said to have begun in India in 1875, when a few philanthropists, under the leadership of Mr. S. S. Bengalee, started an agitation in order to draw the attention of Government to the wretched conditions of the factory workers and the need for legislation. As the Factory Act of 1881 proved very inadequate, there arose the first labour leader Mr. Lokhande, who in 1884 organized a conference of the workers in Bombay factories, for representing their grievances to the Labour Commission that had been appointed just before, got the workers to send a petition to the Governor-General in 1889 reiterating their grievances and appealing for protection, formed the Bombay Millhands' Association, and made it send a memorandum to the Labour Commission of 1890.

With the passing of the Factory Act of 1891, the first phase of the labour movement came to an end. It declined during the period of famines, plague and the economic depression that followed. But it revived in 1904, when the Bombay workers sent a memorial to the Government of India, urging the regulation of their hours of work. In 1910, they formed a second organization called the Kamgar Hitavardhak Sabha, i.e., Workers Welfare Association, and sent a memorial to the Government of India supporting its proposal to limit the daily hours of adult males in factories to 12 and praying for the provision of compensation for accidents, education for children, improvement of housing, etc. It also intervened in a number of industrial disputes on behalf of the workers. With the passing of the Factory Act of 1911, the second phase of the labour movement came

9 See Knowles, *op. cit.* p. 205.

to an end. Throughout this period, the movement was actuated by the spirit of appeal and peaceful methods, and not by that of demanding rights and fighting.

11. *The Necessity for Social Insurance.* Modern industrialism and the factory system brought another evil into prominence, *viz.*, irregularity in earnings caused by accident, sickness, unemployment and old age. This was a much more frequent cause of distress among workers than earnings absolutely small. Workers accommodate themselves to any income not below the bare minimum. But few of them provide adequately for an irregularity of earnings. If the difference between their wages and necessary expenditure is small, they can hardly save, and an interruption in their earnings involves them in suffering. Even if the difference is substantial, most of them are not farsighted enough to provide for the irregularity, by means of saving or insurance. Hence, social insurance was devised as the collective or co-operative method of protecting the workers from the above evil. It was based on the fact that, although the risks of life mentioned above, were incalculable regarding individuals, they occurred with great regularity among groups, and could be foretold and measured exactly. Hence the risk could be spread, on the principle of insurance, among a large number of workers, each of whom shouldered only a small part of the loss, which in the first instance would fall on a few. The contribution paid by each was based on the law of probabilities and the principle of average, which were gradually developed into a science, known as the actuarial science.

The protection to the workers might be provided through voluntary association or by the intervention of the State. The former preceded the latter. The friendly societies in Britain dated from the 18th century.¹⁰ At first, they were small, sick and burial clubs, but in the early decades of the 19th century they formed federations, which covered a wide area. From the middle of the 19th century, the trade unions made the distribution of sickness and unemployment benefits, an important part of their activities. In each case, the members paid regular subscriptions, fixed for a period of years, according to the valuation of the assets and liabilities of each society or union, carried out at regular intervals. The British Parliament made the registration of the societies permissive, not compulsory. The registered societies were given privileges as well as duties.

12. *A State System of Social Insurance in Germany.* Germany for a long time, had thrift institutions, which were originally voluntary, but which were made compulsory by the State in the middle of the 19th century. They managed to establish a customary claim against their employers for free medical at-

¹⁰ See Birnie, *op. cit.* p. 237.

tendance and wages for a month during sickness. Then, voluntary friendly societies on the English model were established from the forties, and trade unions also began to act as friendly societies. The anomalous situation, created by the simultaneous existence of voluntary and compulsory societies, made the introduction of universal compulsory system of social insurance very desirable, and Germany took the lead in the world in the matter in the eighties. By using his great personality and high political reputation, Bismarck succeeded in establishing a great triple scheme of social insurance against sickness, accident and old age. The law of 1883 created a system of sickness insurance, based on the joint contributions of the workers and employers, but not that of the State, on account of the opposition of the Reichstag. It was made compulsory for all industrial workers earning less than 2,000 Marks (£100) a year. The inclusion of agricultural and other workers in the scheme was to depend on the decision of the local or federal authorities. An amendment of the law in 1892 provided for the inclusion, on a voluntary basis, of workers earning between 2,000 and 4,000 Marks, in the scheme. A worker could insure through a friendly society or a special society established in each district by the communal authorities. The benefits consisted of free medical attendance and medicine, and half pay during a maximum period of 13 weeks, raised to 26 weeks in 1904, a year, during sickness. In 1911 a special scheme was established for salaried workers earning less than 5,000 Marks (£250) a year. Shamming of illness and demoralization were prevented, in a remarkable degree, by an efficient administration of the system.

As regards accident insurance, an employers' liability law, applying to railways, factories and mines, was passed in Germany in 1871. But it did not provide for the insurance of workers by employers against accidents. Hence, the law of 1884 entrusted the work of insurance to professional associations of employers, supervised by an imperial insurance office. The law was later applied to every branch of industry, commerce and agriculture. Compensation was paid in all cases in which the accident was not due to the deliberate intention of the victim. In the case of a fatal accident, a lump sum was payable to the dependents. If the victim was disabled for life, he obtained a pension equal to $\frac{2}{3}$ of his wage. He received smaller pensions for less serious injuries. Disputes were settled by a tribunal, with a right of appeal to the imperial insurance office.

The law providing invalidity and old age pensions, passed in 1889, was the third of Bismarck achievements in this line. The scheme was made compulsory for all workers earning less than 2,000 Marks a year, and contributions were payable in equal proportions by the workers and employers, the State adding 50 Marks a year to every pension. Pensions were payable at 70,

in proportion to the total contributions made by the workers. Invalidity pensions were paid on the same principle, when workers became permanently unfit for work owing to ill-health.

13. *A State System of Social Insurance in Britain.* This system was established in Britain much later than in Germany. It was not until 1908 that an old age pension law was passed, establishing a scheme on a non-contributory basis¹¹. Every person on reaching the age of 70 years could claim a pension of 5 s. per week, subject to a means limit of £31, s. 10 a year. In 1911, the National Health Insurance Act made sickness insurance obligatory for all manual workers between the ages of 16 and 70, and for non-manual workers earning less than £160 a year. The cost of the scheme was shared by the employers, workers and the State. The benefits granted were free medical attendance and medicine during sickness, and a weekly payment of 10 s. and 7 s. 6 d. in the case of men and women respectively up to 26 weeks a year. Afterwards, the insured person could get a disablement benefit at 5s. per week. The wife of an insured person could get a disablement benefit at 5s. per week. The wife of an insured person could get a maternity benefit of 30s. for each confinement.

The unemployment insurance scheme also was started in 1911. It applied at first to house-building, shipbuilding, and engineering trades only. An adult paid a weekly contribution of 2½ d. and his employer the same amount, while the State paid 1¼ of the cost of the scheme. The benefit was paid at 7s. a week to unemployed persons who had paid at least 10 contributions. They could get a week's benefit for every five contributions. They could get a week's benefit for every five contributions and the maximum period of the benefit was fixed at 15 weeks per year.

The Workmen's Compensation Act of 1887 provided compensation to an injured worker in a factory or mine for any injury arising in the course of his employment, provided that he had not been negligent himself, whether the employer had been negligent or not. In 1896, this Act was extended to most other workers. Later amendments of the law provided for a benefit, amounting to half wages, up to a maximum of 30s. a week in the case of total disablement, and half the difference between the former wage and the wage earned later, in the case of partial disablement. If the accident proved fatal, the widow received between £200 and 300, and children up to £600. Most employers insured with private companies against their legal liability, but insurance was not compulsory.

14. *Social Insurance in the U. S. A.* In the U. S. A., the movement of social insurance made very slow progress. As

11 See Birnie, *op. cit.* p. 249.

regards accidents, there was supposed to be a liability on the employers for injuries to workers in the course of their employment. But the liability was so hedged in by sundry legal limitations and so beset with uncertainties, that it brought provision only in a small minority of cases. This came to be fully appreciated only by the second decade of this century, and only then most of the States enacted Workmen's Compensation Laws, on the British model. But no provision was made for the other forms of social insurance. The Federal Government was limited in its constitutional power. The States could not agree to act, and did not like to act separately, on account of mutual fears and jealousies. The absence of permanent tenure in the upper administrative services caused a lack of trained officials, that were necessary for the efficient administration of any social insurance system.

In India there was no provision for any form of social insurance until after 1914, on account of the illiteracy, low wages and floating and heterogeneous character of the industrial workers.

CHAPTER XII

CHANGES OF ECONOMIC THOUGHT AND POLICY IN MODERN TIMES: LAISSEZ FAIRE: STATE INTERVENTION: COMMERCIAL POLICIES

The Doctrine of Laissez Faire and the End of Mercantilism. The European statesmen of the 18th century had pushed the principles of Mercantilism, considered in the first chapter, too far. Although the system of national economic expansion had been an advance on the mediaeval system, the time soon came, when the centre of economic interest moved from internal to external considerations and when, what had appeared to be help from one point of view, became irksome restriction, from the other. In most countries, the evils of the system came to exceed its merits. Just as the guild system, from being a stimulus to industry, came to be a serious handicap on it, the Mercantile system, from being an advantage, came to be a great drag. While the advance had been the stress on the national idea, the retrogression came with the emphasis on the exclusive idea. Statesmen in endeavouring to promote industry, often cooked it. Government interfered in all things and, instead of producing good, caused a great deal of harm. The colonies, far from making the mother country stronger weakened it, or cut themselves away from it. Trade was carried on with the idea that, what one nation gained, the other nation was bound to lose.

The growth of international relations and of the foreign market let the thinkers of the 18th century to take a broader view. They had a complete distrust of governments, of which they had seen too much under mercantilism, and a full faith in human nature. They believed in making the individual free, socially and economically; in letting him buy and sell, as and when he chose, at whatever price he chose, select his own trade, and provide for himself in all ways, as he knew that he wanted and how to run his own business, big or small, better than any one else; he should be let alone, and by using his instinct as well as reason, would follow the path of prosperity and usefulness. Jean Jackques Rousseau (1712-78) in France and Jeremy Bentham (1748-1832) in England propagated this belief and stated that individuals were good and wise by nature, but spoiled by civilisation and its institutions. They, therefore, attacked the forces of prejudice and privilege in all directions.

The school of economists in France, known as Physiocrats,

and Adam Smith in England were greatly influenced by the doctrine of natural law, and tried to prove that economic phenomena, like all others, could be reduced to principle. They emphasised the importance of the natural law of freedom in economics. According to them, the most important aspects of natural law were private property and individual liberty. The economic aspect of the liberty was full freedom in internal industry and external trade. Industry was entitled to freedom from the action of local as well as national government, and not only export trade, but import trade also, had to be free. Not merely the provinces of each nation, but the various nations of the world also, would profit from the freedom of trade with each other. The operation of the natural law demanded cosmopolitan freedom instead of national exclusiveness. If it was granted, all nations would enjoy the highest prosperity.

In his *Wealth of Nations*, published in 1776, Adam Smith exposed the fallacies of the mercantile system and the worthlessness of the measures that had been adopted to secure a favourable balance of trade. He explained the economic superiority of international division of labour over national self-sufficiency, and advocated the system of natural liberty in place of principle of State intervention. He stated that his reasoning was based on two axiomatic assumptions, viz., that the individual could promote his welfare by his own efforts far more effectively than the State could do for him, and that the interests of the individual and society were always identical. The concord between these assumptions and the individualism and optimism preached by the philosophers of the 18th century, mentioned above, enabled the educated public to accept Adam Smith's views far more readily than he had expected¹.

The theories of his successors in the 19th century, Ricardo, Malthus, McCulloch, Senior and James Mill endeavoured to show that, if the markets for goods and services were made free everywhere, people and nations would do the work for which they were the most suited and produce the things which they wanted most, and would thus secure the fullest benefit of division of labour. The free movement of prices would lead to the production of the goods, which people wanted most, because they would be free to offer the highest prices for such goods. They could decide for themselves far better than any one else, and their own will to get on in the world, i.e., their "enlightened self-interest", was the strongest driving force. Hence, the economists advocated *laissez faire* which meant "let things alone". On account of the restrictions that prevailed, this meant "set

1 See Birnie, *op. cit.* p. 70.

2 See Croome and Hammond, *op. cit.* p. 129.

things free to take their own course".² The world had outgrown benevolent paternal government. It was realised that governments were not always benevolent and never all-wise, and that with the growth of capital and competition, economic welfare could be promoted better by sweeping away the complicated provisions, which hindered individual initiative and their statesman Colbert "laissez-nous faire", and thereby introduced this phrase, which became famous. This involved the destructive process of removing the hindrances, which were obstructing economic progress.

2. *The Gradual Adoption of Free Trade by Britain.* The new economic doctrines propounded in the *Wealth of Nations* influenced the public men of Britain greatly and with remarkable swiftness, and within a decade of the publication of this book, the English mercantile system was cut down in an important respect. Pitt, the younger, was one of the earliest statesmen to be brought under the ascendancy of the doctrine and in 1786 he made the Eden Treaty with France which gave French wines the same position as Portuguese wines in the English import tariff, and removed two of the pillars of the English mercantile system, viz., the embargo on French trade and the Methuen Treaty. The result was that England's trade with France was trebled. But the war with France in 1793 involved the cancellation of the Eden Treaty, and Pitt's schemes for further fiscal reform and removal of the mercantile system had to be postponed.

After the end of the Napoleonic Wars, the new doctrines and the free trade movement proved victorious in Britain. This was largely the result of the split which the Industrial Revolution had created among the protectionists. Self-interest led the industrial and commercial classes of Britain to adopt the doctrines of Adam Smith. As it was the only industrialized nation, its relations with the other nations now became different. Its manufacturing and commercial classes, having captured the home market entirely and having no fear of foreign competition in it, were now eager to secure foreign markets, by removing the hindrances to the development of the country's foreign trade. They succeeded in securing the removal of industrial protection without any struggle, because they themselves, in whose interest it had been established, did not want it any longer, and no other class was interested in it. But the British landowners now became the supporters of the protective system in the interests of British agriculture. Fearing a decrease in the prices of grain as a result of the end of the Napoleonic Wars, they succeeded in getting Parliament to enact a Corn Law, which prohibited the import of wheat into Britain, as long as its price in Britain remained below 80 shillings a quarter. A keen struggle went on

for many years between the free traders and protectionists over this problem, before the former could triumph.

Huskisson, Peel and Gladstone were the three statesmen, who played an important part in securing this triumph. As President of the Board of Trade, Huskisson reduced during 1823-7 certain import duties, and removed the embargo on certain foreign goods. He also introduced reciprocity in the Navigation Acts, by which the operation of their provisions could be withdrawn in the case of those countries, which were prepared to grant equal treatment to British ships. Peel's achievement was far more remarkable. In 1842 and 1845 he overhauled the import tariff to such an extent that the number of articles subject to duties was reduced from 1150 to 590. Peel felt confident that the consequent loss of revenue would soon be more than made up by increased consumption.³

The Corn Laws were modified in 1826 and 1844 by the introduction of a sliding scale of duties, adjusted to the changes in the price of corn. But the laws failed to prevent a number of agricultural crises brought about after 1815 by heavy falls in price, on account of bumper harvest. At that time the imports of corn were small, because, on account of the high cost of transport, corn was imported only when the domestic price rose very high. Abundant harvests in the country, therefore, caused a serious fall in price and much loss to the farmers. Thus, the corn laws could not be said to have benefited them materially. At the same time, the laws were disliked by the industrial and commercial classes, because the high price of bread was stated to be due to them. In 1838, these formed the Anti-Corn Law League, which, led by Cobden and Bright, carried on intense agitation for the repeal of the laws. Their efforts were resisted by a terrible famine in Ireland, where the potato crop, which supplied the staple food, had failed. Peel, therefore, himself a Tory, carried out the repeal of the corn laws in 1846, with the help of the Whigs. This repeal meant the doom of the protective system in Britain. Peel's work was completed by Gladstone, who in 1853 and 1860 removed the duties on all articles, except 48. Henceforth, Britain became a free trading country.

The adoption of the policy of free trade sealed the fate of the colonial system. The successful revolt of the American colonies had shaken it considerably. Efforts had, therefore, been made to appease the other colonies by a grant of preferences on articles such as grain, timber and sugar. In the early decades of the 19th century, the restrictions on the colonial trade were gradually removed. The trade with India and China was thrown open to all in 1813 and 1833 respectively. The navigation laws were repealed in 1849 and 1854. As the regulations of the colonial

³ See Birnie, **op. cit.** p. 75.

system had been mostly included in them their repeal involved the extinction of the system. The colonial preferences also were cancelled and fiscal independence was given to the colonies.

3. *The Liberal Fiscal Policy of Germany.* In Germany, in the early years of the 19th century, the fundamental aspect of commercial policy was the establishment of fiscal unity. In 1815, although the Congress of Vienna reduced the 350 States of Germany to 39 and established a confederation of them under the leadership of Austria, it allowed them to keep their fiscal independence, which terribly hampered internal commerce and incurred the protest of the economist List⁴. The Prussian monarchy gradually formed the German Customs Union advocated by List, thereby securing the political leadership of Germany. The monarchy first established free trade between the different provinces of Prussia itself, by removing all fiscal barriers between them in 1818. Then by 1826, it persuaded a number of small states, which were surrounded by Prussian territory, to give up their fiscal independence and to form with Prussia the Customs Union of the North, which was joined little later by Hesse-Darmstadt. Two other customs union were formed, the Union of the South between Bavaria and Wurtemberg, and the Middle Union between Saxony and Honover. The last did not last long, but the other two formed themselves into the German Zollverein.

The Zollverein was made up of 18 States, with Prussia as its leader. Prussia, however, took very great care not to offend any state. The fiscal policy of the Zollverein was decided by a conference to the delegates of all the states. Its decisions, however, had to be unanimous. Hence, any one state could successfully oppose any proposal supported by all the other states. All customs barriers were abolished between the states, and one tariff system was provided for the entire area of the union. the yield of the duties was distributed among the contracting states according to their population. During the next three decades, the remaining States, except Austria, joined the Zollverein. Austria also wished to join, but was prevented by its rival Prussia. Then, in 1866, the latter defeated the former, excluded it completely from the German political organization, and altered the constitution of the Zollverein, so that decision could be arrived at by a majority of votes. Prussia was then able to dictate the policy of the Zollverein, until it was absorbed in 1871 by the German Empire, whose customs organization covered all the states.

The duties levied by the Zollverein were moderate throughout its existence. The fervent appeal made by List, in 1841 for the adoption of a strong protectionist policy in his book

⁴ See Birnie, *op. cit.* p. 72.

National System of Political Economy, had been ignored for three reasons. Firstly, the Prussian landowners were in favour of the adoption of a liberal commercial policy in the interests of the export of corn from East Prussia. Secondly, as industries were not much developed in Germany up to the seventies, the industrial interests, although advocating strong protection, had little influence with the Prussian Government. Finally, the triumph of free trade in Britain produced a reaction in its favour on the continent also. France concluded after 1860 commercial treaties with Britain, Germany and several other Continental countries. They included a most 'favoured nation' clause, by which reductions in tariff, granted by one country to another, had to be automatically granted to all the other countries, which had concluded such treaties with it. The result was a remarkable increase in the foreign trade of European countries during 1860-80. The moderate tariff, which the German Empire had inherited from the Zollverein, remained unaltered until 1879.

4. *The Commercial Policy of Russia.* In Russia, Peter the Great and his successors, with one or two exceptions, were imbued with the principle of bullionist mercantilism. This tendency was strengthened by the adherence of Russia to the Continental system and the rousing of every nationalist instinct by the invasion of Russia by the French during the Napoleonic War. Hence, there was a strong desire to impose a prohibitive tariff on the import of all things, which could be produced in the country, and to allow the import of those raw materials and foodstuffs only, which were required, but could not be produced at home. It was also believed that such a tariff would preserve the balance of trade and prevent money from flowing out. Hence, prohibitive tariffs prevailed up to 1824.

The period from 1824 to 1850 was one of transition from prohibitive to protective tariffs. This period coincided with the ministry of Count Cancrin, who believed that the imposition of prohibitive duties on the import of such goods as the country could not produce or could only produce in poor qualities, hammed trade, encouraged smuggling, reduced the customs revenue and checked exports. Hence, prohibitive duties were replaced by lower ones. The effect of this change was remarkable. The customs revenue was more than doubled, exports exceeded imports, and certain industries received a considerable stimulus⁵. This strengthened the desire for free trade. The English ambassador pointed out that, if Russia gave free access to English goods and removed the export duties on its raw materials, Russian raw materials could find a ready sale in England. Hence, the policy of freer trade and lower tariffs began in 1850. It was strengthened by the great Liberal movement, which commenced

5 See Knowles, op cit. p. 277 and Drage, **Russian Affairs**, p. 467.

after the Crimen War and led to the emancipation of the serfs. Moreover, the nobility had now obtained some ready money from the export of corn, and desired to spend it on the purchase of imported manufactured goods, as cheaply as possible. Hence, export prohibitions were removed, the export duties were removed or lowered, and most of the import duties were lowered. Further, Russia abandoned its isolation and concluded commercial treaties with the U. S. A., Britain, France and half a dozen other Continental countries.

5. *The Commercial Policy of the U. S. A.* In the U.S.A., the tariff system was greatly influenced not merely by the prevalent protectionist or free trade ideas, but also by the vicissitudes of Federal finance, in which customs revenue occupied an important part. Thus, at one time the protectionist policy, might be strengthened by the need for revenue, while at another time it might be weakened by a surplus revenue. Moreover, the tariff policy was the battle ground of the two political parties in the country, and the tariffs moved up and down according to the party that was in power. The first tariff was embodied in the Act of 1789. It was a revenue measure, the average of the duties being 8½ per cent. During the Napoleonic Wars, the manufacturers prospered. But when the competition of England revived after the wars, they agitated for protection and obtained it by the Act of 1816, which raised the import duties to the average of 20 per cent. Then, they agitated for further protection and as a result of political manoeuvring among the parties for the Presidential election, the Act of 1828 was passed. It raised all the duties, which came to be known as the "Tariff of Abominations". The agricultural Southern States were furious against it. Hence, the Compromise Tariff Act of 1833 provided for a reduction of duties to 20 per cent.

But, on account of a crisis followed by a depression, the Act could not be given effect to and the duties were raised to the average of 33 per cent. in 1842. This helped recovery, and the Walker Tariff Act of 1846 reduced the duties which were later lowered to 20 per cent. But in 1857 there was another crisis, and a fall in prices the duties. During the Civil War they were progressively raised to the average of 47 per cent⁶. As they were not lowered after the War, the farmers started an agitation. This led to the passing of the Act of 1872, which adopted 'the free breakfast table' policy, i.e., abolition of the duties on tea, coffee, etc., and reduced the other duties by 10 per cent. But another crisis led to the repeal of this Act and the restoration of the duties to the former level in 1875.

The Mackinley Tariff Act of 1890, passed after the success of the strongly protectionist Republican party at the Presiden-

6 See Taussig, **The Tariff History of the U.S.A.**, p. 160.

tial election, raised the duties to the average of 50 per cent, but empowered the President to conclude reciprocity treaties. The success of the Democratic party at the next election led to the lowering of the duties in 1894. But the renewed success of the former party led to the passing of the Dingley Tariff Act of 1897, which raised the duties to 57 per cent. but allowed reciprocity agreements as before. Under the influence of the moderate section of the Republicans; the Payne-Aldrich Act was passed in 1909, which lowered some of the duties, but provided for higher retaliatory duties against those countries that discriminated against the U.S.A. The victory of the Democrats and the public discontent against monopolies and the high cost of living attributed to high tariffs led to the passage of the Underwood Tariff Act of 1913, which reduced the duties further, without, however, abandoning the policy of protection.

6. *The Policy of Free Trade in India.* In India, the East India Company, guided by the Colonial system and the policy of Plantations, and supported by the *laissez faire* doctrine, reduced all the duties to a very low level, in the early decades of the 19th century, so that the British trade with India might not be hampered in any way. Thus, up to the Mutiny, there was an important duty of 5 per cent on finished goods and 3½ per cent on raw produce. Goods imported in foreign ships had to pay double of these duties up to 1848. Afterwards, the nationality of ships was ignored and double duties were imposed on non-British goods. The financial difficulties created by the Mutiny led to the removal of this distinction and the adoption of general rate of 10 per cent. It was lowered to 7½ in 1864 and to 5 in 1875. In 1882, the duties were abolished at the behest of the British Government, which was influenced by the British manufacturers, although the Viceroy, Lord Northbrook, was against the abolition.

Between 1882 and 1894, there were thus no import duties, and free trade was maintained. But in 1894, on account of financial difficulties created by a progressive fall in the sterling value of the rupee, a general import duty of 5 per cent was imposed. At first, cotton yarns and manufactures were excluded from this tariff, but it was soon found that on account of this exclusion, the required revenue could not be obtained. These goods also, therefore, were subjected to the duty. Thereupon, the Lancashire cotton manufacturers protested vigorously, and to appease them, a countervailing excise duty of 5 per cent was levied upon Indian mill-made yarn. But the Lancashire manufacturers objected that the Indian people could not afford to buy cotton goods, whether produced in Lancashire or in India, at the higher prices, while the Indians objected that their industry was handicapped. In 1896, therefore, the import duty on cotton piecegoods was lowered from 5 to 3½ per cent, the excise duty on

cloth manufactured in Indian mills was also placed at 3½ per cent. Indian hand-woven cloth was freed from the excise duty, and all cotton yarn, whether imported or produced in India, was also entirely exempted from the duty. The abolition of the duty on imported yarn was in the interests of both India and Lancashire, because the handloom weavers in India used imported yarn for their finer goods. But the excise duty of 3½ per cent on Indian mill-made cloth caused much discontent in India, as it harmed the Indian industry without benefiting the Lancashire one. Most of the Indian mill-made cloth, being of coarse qualities, could not compete with the Manchester cloth, most of which was of superior qualities. Moreover, the lowering of the import duty from 5 to 3½ per cent benefited the richer consumers of fine foreign cloth, whereas the excise duty penalised the poor consumers of coarse Indian mill-made cloth. The excise duty, however, was retained, because the Lancashire manufacturers thought it to be in their interests.

Between 1899 and 1904 countervailing duties were levied on imports of bounty-fed sugar from Germany, Austria and Denmark. But they were removed after a few years. In 1910 to make up for the loss of revenue from opium, the exports of which to China were stopped, and to meet increased expenditure, higher import duties were imposed on silver and petroleum. With these exceptions, the tariff system that was introduced in 1894 remained unchanged until after 1914. Its principles were a low general import duty for revenue purposes, exemptions or reductions for urgently required goods, and higher duties on goods like liquor and tobacco, the import of which should be checked or which could stand higher duties.

7. Reaction against Laissez Faire and the Increase in State Activity. The doctrine of *laissez faire* held sway throughout the middle years of the 19th century, but a reaction soon began against it, because it had serious drawbacks. The assumption that every individual knew his own interests best and would follow them was justified only when the persons concerned possessed equal or nearly equal standing and opportunities. The position became altogether different when some had inherited or acquired wealth and were conscious of their strength, while others had no reserve and were ignorant and even illiterate. The situation became very much worse, when the latter were not adults, but orphan, pauper, apprentice children. Moreover, persons might be wise and capable in shaping their own lives, and yet they might not care much about what would happen to the nation after them, as a consequence of their own doings. Finally, experience provided that it was very difficult to maintain harmony between private and public interests as regards public health. Hence, the enactment of social and economic legislation, such as Factories, Mines, Education and Health

Acts, involved a struggle between the doctrine of *laissez faire* and the growing sense of common responsibility. Into this struggle, a number of vested interests put in their strength on that side, which benefited them for the time being, and prejudices and confused thinking made matters worse. On the whole, the State went on playing an increasing part in directing the social and economic life of the nation, until that part became as active in theory as, and far more efficient in practice than, that played during times of paternal mercantilism.

The intervention of the State in the economic sphere increased especially from the eighties of the last century on account of the operation of certain new factors, in addition to the sense of common responsibility mentioned above. One such factor was the increasing rivalry among nations.⁷ Each thought it necessary to assist its own citizens, if others were doing so, because the resources of individuals could not stand against those of foreign governments. No nation was prepared to be outdone and left behind. Hence, each Government came forward to help, subsidize or control the doings of its citizens. The international rivalry was largely the result of railways and steamships. The railways brought the Continental countries, which had large land areas and small openings into the sea, into prominence. The Industrial Revolution brought about a scramble for raw materials and markets, and men turned to their own Governments for assistance to obtain their share.

Britain was supposed to control the bulk of the raw materials of the world, through its shipping, which carried them, and to dominate the world markets for manufactured goods, through the same means. Governments of other countries, therefore, thought it necessary to build up their own shipping, for these purposes, by means of subsidies and other forms of help. They also began to scramble for colonies, in order to secure raw materials and markets. Railways made colonies more valuable by opening them up and this expanded the sphere of Government's activities. Government had to finance the construction of railways in colonies, to promote the production of raw materials there by the application of improved methods, to finance the construction of big irrigation works, as in India and Egypt, to regulate the supply of water from them to ensure that all farmers obtained it in a fair manner and to make the colonies healthier by imposing sanitary regulations such as those imposed by the Government of the U.S.A. in connection with the Panama Canal. The paternalism required for governing tropical or semitropical colonies increased the reaction against *laissez faire* and in favour of constructive action by the State. If the State could successfully carry out large public utility works, benefit-

7 See Knowles, op. cit. p. 343.

ing the people of the colonies greatly, it could undertake constructive action, for promoting the welfare of the people of the home country.⁸

The railways extended the sphere of State activity by making it necessary for the State to control or operate them and by centralising and increasing the power of Government, as a consequence of diminishing the importance of distance and breaking up a good deal of local life. Before the railway era, messages took several days to reach their destination, even at short distances. Hence, private initiative or at most local administration had to be depended upon to a great extent. But railways, telegraphs and telephones made administration far easier and led to its centralization.

Another factor in operation was the labour and socialist movements. In primitive society, there were no social classes. But improvements in the means of satisfying wants created and increased individual and class differences and inequalities of wealth. The Industrial Revolution accentuated these tendencies to a great extent. It produced both good and evil. It made a few rich but many poor. It increased national wealth without increasing national welfare. It stressed the problem of poverty by bringing into existence a large social class of landless and propertyless proletarians, entirely divorced from the ownership of the means of production and completely dependent on wages for their living. Hence, the problems concerning the production and distribution of wealth assumed a new importance, and out of the clash of ideas, economics and socialism developed. At first the two were in conflict with each other. The economists were the advocates of the prevailing social and economic system, but the socialists condemned it. The former supported economic liberty and freedom of enterprise while the latter advocated State intervention and collectivism. Socialists favoured the conduct of all economic activities by the State and accustomed people to the idea of the nationalization of the means of production. The economists gradually realised the serious drawbacks of uncontrolled private property and unregulated freedom of enterprise, and gradually accepted an increase of State action as a compromise, in the interests of the rural and urban wage-earners.

The socialist movement was accompanied by a labour movement, which was an organized effort on the part of the wage-earners to raise their standard of life, and took two forms. Firstly, they voluntarily formed themselves into trade unions for compelling their employers to grant them various benefits. Secondly, they endeavoured to secure control of Governmental machinery, so as to use it later for changing the social system,

⁸ See Knowles, *op. cit.*, p. 344.

for their own benefit. In many countries, both these forms were attempted simultaneously. The socialist and labour movements stimulated the enactment of progressive, social and labour legislation, considered in the preceding chapter and Government activity had to be expanded in order to enforce it, through inspectors, controls and other methods.

Increased State activity need larger revenues. Increasing expenditure on armaments after 1870 also needed them. This necessitated the imposition of new taxes, such as the income tax, death duties, etc., and the raising of the old taxes, such as the customs duties, and this in turn meant a further growth of State intervention. Progressive, direct taxation came to be used more and more not merely as an instrument of finance, but also as a method of reducing the inequalities of income.

Other factors which led to the increase of State intervention were the necessity for protecting agriculture in Continental countries from the large imports of grain and meat from America, by means of import duties, the demand for protecting the nascent industries by similar means, the development of the health movement and the system of sickness insurance, the necessity of controlling the growing power of the Trusts and other industrial combinations, especially in the U.S.A., the necessity of controlling the emigration movement, and the readiness of the immigrants into the U.S.A., from the countries where serfdom had prevailed, to submit themselves cheerfully to a large measure of State interference. Finally, in those countries in which serfdom had prevailed up to the 19th century, there was a strong predisposition in favour of control from above, as there had been no movement or training in individual initiative.

8. *The Protectionist Revival in Europe.* The growing State intervention was to be found in all spheres of economic life, agriculture, industry, transport, commerce and social welfare. On the Continent of Europe, the growth of nationalism, the development of industries and threat to agriculture from large imports of cheap American corn produced a strong reaction in favour of protectionism from the eighties. An additional cause in Germany was the growing expenditure of the Imperial Government, which could be met only by a general increase in import duties, all other sources of revenue being handed to the federating States by the Imperial constitution. Bismarck, however, raised the duties only to a moderate extent; yet this trebled the customs revenue. At the same time, he tried to prevent retaliation by other countries, by making commercial treaties with them. By the time of the dismissal of Bismarck from office in 1890, however, they had become dissatisfied with the treaties and were demanding their revision. In spite of the opposition of the agricultural classes, who were afraid that commercial con-

cessions would be at their cost, the new Chancellor Caprivi succeeded in revising the treaties with the help of the industrial and commercial classes, who desired the opening up of foreign markets. But the opposition and agitation of the agricultural classes increased, and in 1902 the Imperial Government had to raise the import duties on agricultural products. It appeased the industrial classes by doing the same in the case of manufactured goods. These duties continued up to 1914.

The protectionist revival on the Continent led to the advent of a protectionist party in Britain also. In the eighties and nineties, the party was small and demanded the so-called fair trade. But in the opening years of the new century, it became stronger under the leadership of Joseph Chamberlain and demanded tariff reform, for protecting British manufacturers at home from foreign competition which was becoming rather serious, and for joining the colonies closer to the mother country, by the formation of an imperial customs union. The Conservative party expressed itself in favour of this programme, but the electorate refused to accept it, as it involved the adoption of elaborate colonial preferences, which would have meant the taxation of food. The industrial population dreaded this kind of taxation. Hence, Britain remained a free trading country.

In Russia also a strong reaction in favour of protectionism commenced from the eighties. The Slavophils and Pan-Slavists became politically powerful. They regarded Russia as having attained a higher stage of true civilization than Western Europe, opposed all things Western, and desired to keep Western goods out of Russia. Wischnegradski and Count Witte, ministers, set themselves to the realisation of this goal by making Russia self-sufficient. The protectionist reaction was helped also by the cotton manufacturers round Moscow. So, the tariff was raised in 1881 and 1885, until it became 50 per cent higher than what it had been before. Then it became necessary to accumulate a gold reserve, to base the paper and silver currencies on it, so as to prevent heavy fluctuations in their purchasing power. It was thought that the best way to do this was to create a favourable balance of trade by encouraging exports of corn and checking imports and developing home industries. There was also the idea of creating a great self-contained Empire. Hence, the tariff of 1891 was made very high and very wide in its scope, and went beyond the achievements of the protectionist revival in Europe. The same policy was vigorously carried on in the nineties, and exports of corn, dairy products, textiles, sugar and petroleum were encouraged, so that the interest on Russia's foreign debt might be paid in goods and not in money. In 1900, the tariff was raised again to meet the expenses of the War in China. Just before 1914, the tariff showed a downward tendency, but even then it was the highest in

the world. This tariff policy, however, did not succeed in developing industries in Russia to anything like the extent to which a similar policy succeeded in Germany, because a people well prepared for industrial labour and organization and the consumption of manufactured goods were absent in Russia.

There was no protectionist revival in the U.S.A. or India. As explained before, the former was protectionist and the latter was free trading throughout the century.

9. *State Help to Agriculture.* In addition to the protection given to agriculture by means of tariffs and readjustments of taxation, the Continental Governments assisted agriculture by granting bounties on the production of beet, and stimulating the introduction of a rotation of crops and intensive cultivation. They helped the formation of co-operative societies for purchase and sale among small farmers, to enable the latter to overcome the drawback of being small and to free themselves from middlemen. They also helped the formation of co-operative credit societies by means of grants and other methods, so as to rescue the peasants from moneylenders and mortgage debts. They helped to re-arrange and consolidate the agricultural land so as to form compact holdings. They intervened to supply cheap transport for the movement of agricultural products. They provided agricultural education and encouraged research. The exports of corn from the U.S.A. made the Government of that country take a growing interest in the problems of agriculture and encourage education and research. It even protected the farmers in 1897 from imports of corn from Canada. The part played by the Indian Government in stimulating agriculture in India has been explained before.

10. *State Intervention in Industries, Education, Social Welfare, etc.* The intervention of the State in industries should be examined from three view-points, viz., production by the State, the control of joint stock companies and of industrial combinations, and the training and protection of the workers. There was little State production beyond the manufacture of clothing, ordnance, armaments, etc., for defence purposes, and the manufacture and repair of locomotives and waggons, if the State managed the railways. In some cases, the State assisted production by means of subsidies, the placing of orders, low railway rates, the supply of cheap timber and other concessions, e.g., the iron industry in Russia and the shipbuilding industry in Germany. The State had to ensure honesty in the flotation and conduct of joint stock companies, by passing laws which imposed various restrictions upon them, and by establishing a department to ensure that the provisions of the law were fully carried out. Again, when companies formed industrial combinations and created monopolies, the State had to regulate them in the interests of the public. The most drastic develop-

ment of this kind took place in the U.S.A., where legislation had to be enacted not merely for making Trusts illegal, but also for establishing in 1912, the Federal Trade Commission, with powers to dissolve monopolistic combinations and to prosecute members after enquiry. These responsibilities involved a considerable extension of State activity.⁹

With the decline of domestic workshops, in which apprentices used to receive technical training, the State had to establish educational institutions for supplying this training. Further, the State had to protect the workers by passing factory, mining, compensation and insurance laws which have been considered before. In transport, for economic as well as strategic reasons, the State had either to own and run the railways or to exercise extensive control, if they were run by companies, as explained before. In the matter of social welfare, the State had to enact sanitary, educational and poor laws, and to establish departments for enforcing them. Finally, the State conducted or subsidized scientific research in medicine, public health, agriculture, industries, etc.

⁹ See Knowles, *op. cit.* p. 340.

INDEX

- Agrarian development in India, 163.
Agrarian revolution in Britain, 144; in Germany, 154; in Japan, 161; in Russia, 156; in the U.S.A., 150.
Agricultural Colleges in India, 170.
Agricultural Departments in India, 170.
Agriculture, 16, 147, 151, 153, 163, 167, 169, 212.
Artisans, 6, 17, 34, 182.
Britain, as carrier and Empire-builder, 129; commercial revolution in, 9; corn laws in, 150, 200; enclosure movements in, 148, 151; farms in, factory laws in, 185; factory system in, 67; free trade in, 198; guilds in, 24; industrial revolution in, 62; inventions in, 56, 66; mediaeval towns in, 22; mediaeval village in, 9; roads in, 100; place of, in India's foreign trade, 144; population of, 78; protectionism in, 170; railways in, 107; shipping in, 157; trade unions in, 190; waterway in, 103.
Canals, in Britain, 104; in India, 105.
Canal colonies in the Punjab, 217.
Caste system, 45.
Chain stores, 169.
Christianity, 39.
Coal industry in Britain, 64; in India, 85, 86, 88.
Coffee industry in India, 163, 87, 90.
Colonial system, 58; in India, 86.
Combinations, 135.
Commercialized agriculture in India, 163, 165.
Commercial integration, 135.
Commercial policy, of Britain, 201; of Germany, 202; of India, 206; of Russia, 204; of the U.S.A., 205.
Commercial revolution, 126.
Commercial specialisation, 132.
Commercial staples, 131.
Co-operative credit in India, 166.
Corn laws, 150, 201.
Cotton textile industry in Britain, 66; in Germany, 74; in Japan, 76; in India, 85; 87; in Russia, 74; in the U.S.A., 70.
Crops, marketing of, in India, 165.
Craftsman in India, 31.
Departmental shops, 134.
Domestic system, 49.
Economic liberalism, 58.
Economic system, old, 1; modern, 55.
*Emigration, 141.
Enclosure movement, 15, 148.
Exchanges, produce, 133.
Factory laws, in Britain, 185; in Germany, 187; in India, 188; in the U.S.A., 187.
Factory system, 40, 67, 172.
Fairs, 35.
Family, 37, joint, in India, 50.
Famine Commissions in India, 168, 175.
Famines in India, 175.
Farms, 152.
Feudal system, 13, 152.
Fragmentation of holdings in India, 179.
Free trade in Britain, 202; in India, 184.
German agrarian revolution

- in, 154; commercial policy of, 202, 210; emigration from, 141; factory laws in, 185; Kartells in, 138; industrial revolution in, 71; population of, 78; railways in, 110; shipping in, 120; social insurance in, 136; trade unions in, 193; gilds, 22, 40.
- Handicrafts**, in Europe, 21; in India, 28, 81, 96; system, 40.
- Help or hire system**, 39.
- Hinduism**, 46.
- Indebtedness of Indian peasants**, 177.
- India**, agrarian developments in 163; agricultural methods in, 171; artisans of, 182; colonial, system in, 59; commercialization of agriculture in, 163; commercial revolution in 142; factory laws in, 185; famines in, 175; free trade in, 206; handicrafts in, 29, 81; indebtedness of peasants in, 177; industrial revolution in, 121; irrigation works in, 171; marketing of crops in, 165; money-lenders in, 178; population of, 98; railways in, 114; roads in, 102; shipping in, 123; sub-divisions of holdings in, 179; takavi loans in, 171; tenancy legislation in, 176; towns in, 27, 95; trade of, with Britain, 151; trade unions in, 194; villages in, 17, 182; waterways in, 106.
- Industrial Revolution**, 60; in Britain, 60; in Germany, 71; in India, 81; in Japan, 76; in Russia, 74; in the U.S.A., 69.
- Industries in India**, 82.
- Imperialism**, 58.
- Inheritance law**, 52.
- Islam**, 41, 46, 43, 49.
- Inventions**, 56, 57, 65, 66.
- Japan**, agrarian revolution in, 161; industrial revolution in, 76; population of, 76; railways in, 113; shipping in, 122.
- Jews**, 38.
- Joint family system**, 50.
- Judaism**, 40.
- Jute industry in India**, 86, 87, 89.
- Kartells**, 138.
- Laissez Faire**, 199, 207.
- Manor**, 9.
- Marketing of crops in India**, 165.
- Mercantile system**, 31, 199.
- Migration**, 141.
- Mineral industries in India**, 89.
- Moneylenders in India**, 177.
- Nationalism**, 57.
- Population in Europe**, 79; in India, 97.
- Produce exchanges**, 133.
- Proletariat, rural**, 148.
- Protectionist revival**, 210.
- Railways**, 126, 139; in Britain, 107; in Germany, 110; in India, 190; in Russia, 111; in the U.S.A., 112.
- Revolution**, 55; agrarian 137; commercial, 119; financial, 139; industrial, 62; transport, 100; social, 139.
- Revolution in India**, commercial, 142; industrial, 81.
- Revolution in commercial organization**, 132.
- Roads**, 100.
- Russia**, agrarian revolution in, 156; commercial policy of, 202; industrial revolution in, 74; railways in, 111; trade unions in, 143.
- Serfdom**, 11.
- Shipping conferences**, 121.
- Shipping in Britain**, 118; in India, 123; in Japan, 122; in the U.S.A., 120; on the Continent, 120.
- Social insurance**, 171; in Britain, 119; in Germany, 195; in India, 197; in the U.S.A., 197.

- State activity, 207.
 Sub-division of holdings in India, 179.
 Takavi loans in India, 171.
 Tea industry in India, 85, 86, 169.
 Tenancy, relationship, 10, 12; legislation in India, 176.
 Textile industry, see cotton textile industry.
 Towns, growth of, 139; in India, 28, 95; in Mediaeval Europe, 32.
 Trade unions, in Britain, 190; in Germany, 192; in India, 195; in Russia, 193; in the U.S.A., 193.
 Transport, 57, 100.
 Tribe, 34.
 Trusts, 137.
 U.S.A., agrarian revolution in, 158; combinations in, 137, commercial policy of, 202, 210; factory laws in, 188; immigration into, 141; industrial revolution in, 69; population of, 79; railways in, 110; shipping in, 120; social insurance in, 197; trade unions in, 193.
 Village, Indian, 57, 181; in Mediaeval Europe, 7, 9.
 Waterways, in Europe, 103; in India, 106.

